

Interpretation of data on smoking

Smoking is a lifestyle choice. But it comes with many risks to physical health. As you might imagine, there is much lifestyle data associated with smoking.

Who produces lifestyle data on smoking?

The ONS collects data relating to smoking. It publishes both statistics and reports giving key findings. For example, in 2019 it found that men are slightly more likely to smoke than women and smoke more each day in England (16.4% of men, 12.6% of women).

ASH (Action on Smoking and Health), a public health charity, works towards eliminating the harm caused by smoking tobacco. It uses data about smoking to:

- influence policy (guidelines)
- inform, educate and raise awareness about the risks of smoking
- campaign for tighter controls on the tobacco industry.

ASH receives funding from the British Heart Foundation and Cancer Research UK. It has also received project funding from the UK government's Department of Health to support tobacco control.

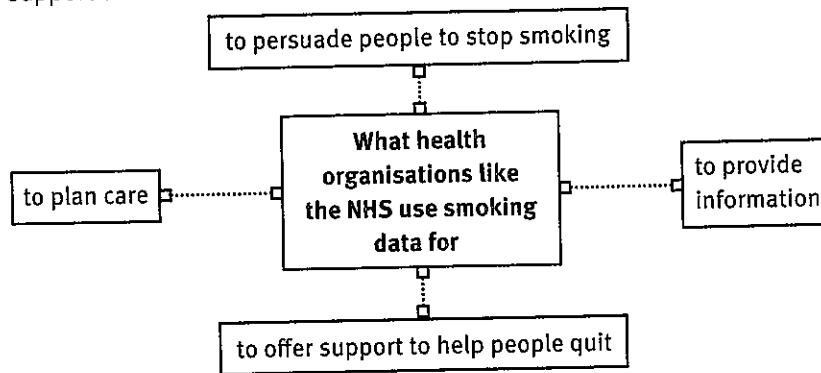


Figure 3.15: The uses of smoking statistics

What the data achieves

The data on smoking provides the UK government with evidence it can act on by:

- planning national health promotion campaigns to reduce smoking and its associated risks to physical health
- passing laws about smoking (for instance, where you can and cannot smoke).

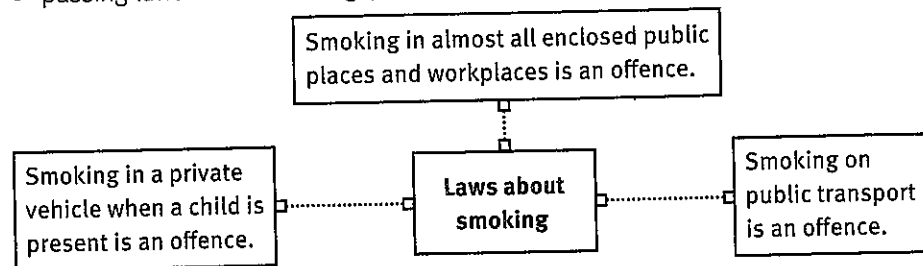


Figure 3.16: Smoking is now banned in many places

Data also delivers hard-hitting anti-smoking campaigns, led by Public Health England. These may be seen on TV, billboards and online. They use graphic images such as:

- cancerous tumours growing from the end of a cigarette (2012)
- blood polluted by smoking products flowing through the body (2013)
- fumes travelling through arteries and veins into the brain (2014)
- smoke rotting the body from within (2015).

GETTING STARTED

In a small group, discuss whether a pregnant woman has the right to smoke.

DID YOU KNOW?

Smoking in pregnancy causes around 5,000 miscarriages, 300 perinatal deaths and 2,200 premature births in the UK each year (Royal College of Physicians, 2010). Perinatal generally means the period of time just before and after birth.

DID YOU KNOW?

Public health refers to the field of medicine concerned with safeguarding and improving the health of the community as a whole.

What the data shows

Another important source of data on smoking, is the **UK Chief Medical Officers' Smoking Guidelines**, which can be found at gov.uk. It identifies that:

- although the number smoking continues to decline, 13.9% of adults in England still smoke, which was over 6 million people in 2019
- smoking is the leading cause of preventable illness and premature death and killed about 64,000 people in England in 2019
- there were about 506,100 smoking-related admissions to hospital in 2019 to 2020
- one in four patients admitted to hospital is a smoker
- smokers see their GP 35% more than non-smokers
- around one in ten babies in England is born to a mother who smoked throughout her pregnancy, which can lead to low birth rate, neonatal complications and sudden infant death syndrome
- around 40.5% of people with a mental illness smoke
- the government aims to achieve a smoke-free society in England by 2030, which would mean that no more than 5% of adults will be smoking by then.

There is therefore, a wealth of material available on the risks smoking poses to health. By providing this information in a suitable format that is attention-grabbing and easy to read, people are more likely to decide to try to give up smoking.















	 Cancer risk factor (%)	 Cancer risk factor (%)
1	Tobacco  23	Tobacco  15.6
2	Lack of fruit and vegetables  6.1	Overweight  6.9
3	Occupational hazard  4.9	Infection  3.7
4	Alcohol  4.6	Exposure to sun and sunbeds  3.6
5	Overweight  4.1	Lack of fruit and vegetables  3.4
6	Exposure to sun and sunbeds  3.5	Alcohol  3.3

Figure 3.17: What does this diagram tell you about the impact of smoking on cancer? (Source: Cancer Research UK)

ACTIVITY

- 1 Download fact sheets giving lifestyle data on smoking from reliable websites such as www.ash.org.uk and www.nhs.uk/smokefree/why-quit.
- 2 Work in a group to prepare a presentation. The presentation can be in any form your group chooses. Make sure you use the most relevant data to highlight the risks of smoking

to physical health. Your presentations must include facts and figures about risks to physical health presented in picture and diagram form – for example, pie charts – so that everyone can easily understand the information you put together.

- 3 Show your presentation to the rest of the class.

CHECK MY LEARNING

- 1 Identify how organisations such as ASH and the NHS use lifestyle data on the risks to physical health of smoking.
- 2 Assess the relative risk of cancer caused by smoking compared with the total risk from the other factors shown on Figure 3.18.

Interpretation of data on alcohol and substance misuse

GETTING STARTED

In small groups, discuss the example of someone of your age who drinks alcohol. What do you think their positive and negative experiences might be? How might this affect on how alcohol may be affecting this person's physical health.

Drinking alcohol and substance misuse are lifestyle choices. It may seem appealing and social, but it comes with risks to physical health. Lifestyle data about alcohol and substance misuse helps to inform us about those risks.

Who produces and uses lifestyle data on alcohol?

There are various organisations that either gather data or use data on alcohol use. The ONS collects information and publishes reports on various aspects of health risks due to alcohol. The UK Chief Medical Officers publish Alcohol Guidelines, and the Drinkaware Trust is a UK alcohol education charity.

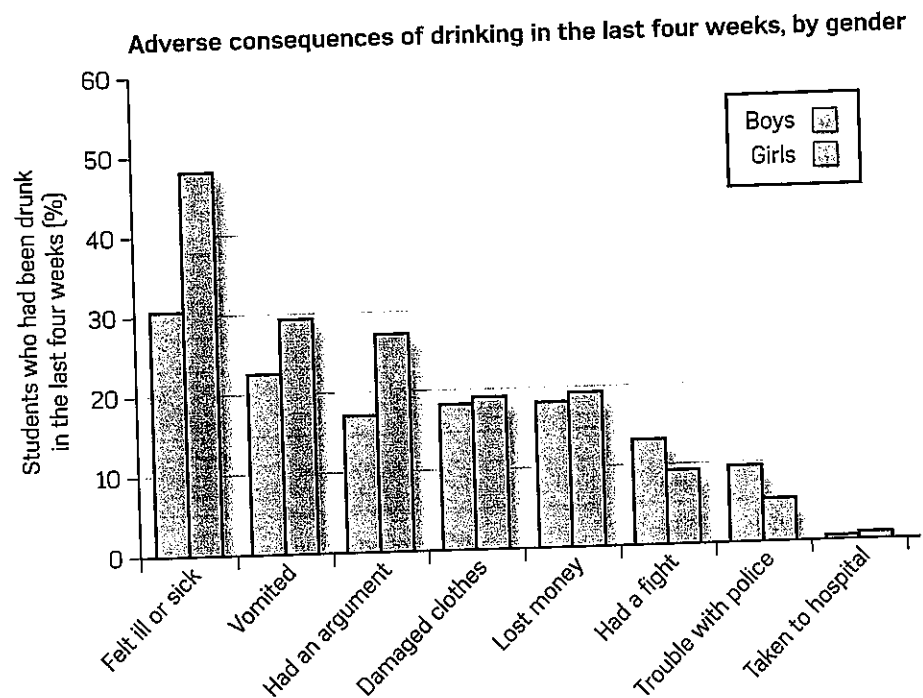


Figure 3.18: Lifestyle data on drinking alcohol can help to produce information like this

What the data shows

- Here are some examples of what current lifestyle data on alcohol shows.
- It is strongly linked to at least seven types of cancer. For example, a lifetime of drinking too much alcohol can increase your risk of bowel cancer by 23 per cent.
 - Alcohol-related liver disease accounts for 37 per cent of liver disease deaths.
 - Two-thirds of cases of chronic pancreatitis are caused by heavy drinking, most commonly in men aged between 45 and 54. (Pancreatitis is an inflamed pancreas that has damaged cells.)
 - More than 25,000 people were admitted to hospital with acute pancreatitis in 2013 and 2014.
 - Around 1,000 people die from acute pancreatitis every year.

- You are between two and five times more likely to have an accident or injure yourself if you drink five to seven units of alcohol in one sitting.
- Less than one-third of the British public knows about the link between alcohol and breast cancer.
- Each drink per day increases the risk of breast cancer in women by between 7 and 13 per cent.
- In 2011, 3,000 cases of breast cancer were directly caused by alcohol consumption.



Did you know about the links between breast cancer and alcohol consumption?

This data can be used in health campaigns to show everyone the risks of drinking alcohol, how to lower their consumption and how to reach safe limits.

New safe limits

In January 2016, the UK government published new guidelines on drinking alcohol. The guidelines say that:

- any amount of alcohol can increase the risk of cancer
- men and woman who drink regularly should consume no more than 14 units a week (the equivalent of six pints of beer or seven glasses of wine)
- people should not binge-drink all 14 units in one go.

ACTIVITY

- 1 In a group, share and discuss your ideas for persuading people to either reduce their alcohol consumption to at least the latest recommended safe limits, or not use substances such as illegal and prescription drugs, based on the lifestyle data available.
- 2 Plan a school or house assembly to persuade young people of your own age not to binge drink or go over the recommended new limits or use drugs, by highlighting the possible short- and long-term risks to their physical health.
- 3 Perform your planned assembly for the rest of the class.

Who produces and uses lifestyle data on substance abuse?

As well as alcohol, the government publishes lifestyle data on substance abuse (gov.uk), as do various other organisations, such as the National Institute for Health and Care Excellence (NICE) (nice.org.uk) and the ONS.

ACTIVITY

Do some research and bullet point at least 8 facts or statistics on the misuse of drugs in the UK.

CHECK MY LEARNING

- 1 Give one reason why the comparison of data on alcohol use with that of an individual is useful for a GP assessing their health and wellbeing.
- 2 Explain why the government recommends that men and women who drink regularly should consume no more than 14 units a week, but also says there is no safe limit for alcohol consumption.

GETTING STARTED

Recap with a partner all the factors covered earlier in this component that can have a negative effect on health and wellbeing. Remember that these negative effects will pose a risk to physical health.

DID YOU KNOW?

- The ONS (www.ons.gov.uk) is the UK government's largest provider of statistics. The information it compiles provides an evidence-base for policy and decision making and the allocation of resources.
- NHS Digital (digital.nhs.uk) publishes a range of statistics about health. The data can be used by researchers, patients and health care professionals.
- It can take a long time for statistics to become available - up to 2 years. This is because it needs to be collected, collated, analysed and written up. Information you are reading now may have been collected up to 2 years ago.
- The word 'data' doesn't only refer to numbers. Data includes facts as well as statistics.

KEY TERM

Targets are goals and aims.

Interpretation of data on nutrition

We can measure our own lifestyle choices against officially prepared data. This can include information about healthy nutrition.

An example of lifestyle data

The National Diet and Nutrition Survey in England is conducted every year, with results published every two to three years. A total of 500 adults and 500 children, representative of the UK population, are asked about their dietary habits over a four-day period. Their responses and different nutrient levels are checked by taking blood and urine samples. The report from December 2020 said:

- Although sugar consumption remains high, there has been a steady decline in both children's and adults' consumption since 2008.
- There is no decline in the consumption of sweets and chocolate, but that of sugar drinks has fallen.
- All adults now consume, on average, less than the maximum recommended daily intake of red and processed meat, which is 70g.
- Saturated fat intake is increasing in some groups, which is a major contributor to high cholesterol and heart disease. This is probably due to the big increase in people following lower-carb diets.
- The average intake of fibre is still far below the recommended daily amount.
- Average salt intake in 2020 was still 2.4 g higher than the recommended intake of a day.
- Most people are still not eating the recommended five portions of fresh fruit and vegetables a day, although this has risen a little since 2014 to 2016.
- Two-thirds of the population remain overweight or obese.

The conclusion was that we all need to avoid eating excess calories, sugar, salt and saturated fat, and eat more fruit, vegetables, fibre and oily fish to lower our risk of long term health problems.

This kind of data can be used to develop realistic health improvement plans to tackle obesity. It might be used (for example, by the NHS) in areas of the country that have a high proportion of illness caused by obesity. In order to draw up a plan for a group of obese individuals (regionally or nationally) it will be necessary to:

- assess the present health status of that population by looking at lifestyle data
- set **targets** for health practitioners aimed at improving the situation
- provide support to help meet those targets – for example, trained staff, better buildings, facilities such as larger beds and scanners that will accommodate people, and information
- identify any difficulties that may arise and provide alternative strategies to meet targets to help overcome those difficulties. The Eatwell Guide, which you learned about earlier, outlines what and how much we need to eat, to keep us healthy
- monitor and review progress made towards meeting targets and, if necessary, set new targets as time passes.

**BEST PRACTICE**

As a health and social care provider you must be careful how you suggest a service user makes a change such as losing weight. Always focus on the benefits of making a change, so you sound supportive rather than critical.

- On average one in ten children is obese and more than a fifth are overweight or obese by the time they start primary school. How will an obese child overcome their weight problem?

ACTIVITY

1. Look on the Eatwell Guide on the GOV.UK website.
2. Find the most up-to-date data based on nutrition and produce a health promotion poster showing the key data. If you quote any statistics make sure they are up-to-date (by checking the date the website was updated) and from a UK website.
3. Display your poster on the wall and make notes from the other posters.
4. Peer and self-assess each poster.

LINK IT UP

To remind yourself about lifestyle choices, go to Learning Outcome A in Component 1 and Learning Outcome A in Component 2.

CHECK MY LEARNING

- 1 State what is meant by lifestyle data.
- 2 Explain how lifestyle data can be used to help improve the health and wellbeing of a group of individuals.

Interpretation of data on physical activity

GETTING STARTED

With a partner, discuss how active you and your family members are in a week. Talk about the possible consequences or benefits. Remember to gather your data without making any judgements.

Lifestyle data relating to inactivity lets you know exactly what is meant by inactivity and what you need to do in order to be active enough to make you healthy.

Data on regular physical activity

As you have already learned, activity decreases the risk of many conditions such as stroke, diabetes, cancer, obesity, arthritis and cardiovascular disease. Data says that regular physical activity can make a positive difference, as Figure 3.14 shows.

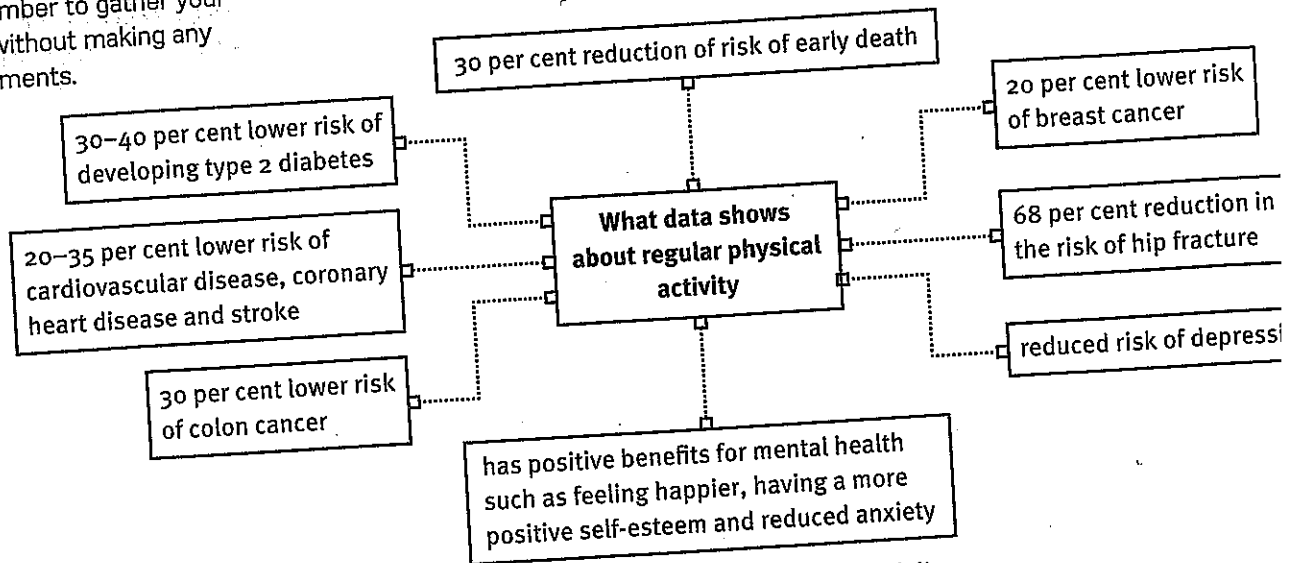


Figure 3.14: The many benefits of physical activity

Because of data such as this, guidelines were issued by the Chief Medical Officers (CMO) of England, Scotland, Wales and Northern Ireland in 2011 for recommended levels of physical activity for:

- adults aged 19–64 years
- adults aged 65 years and over
- children and young people aged 5–18 years
- children under the age of 5 who can walk.

The physical activity guidelines also suggested that everyone should aim to be active every day. For example, children and young people aged 5 to 18 years should do

- moderate to vigorous intensity activity for at least 60 minutes and up to several hours every day
- vigorous intensity activities, including those that strengthen muscles and bones, at least three days a week
- less sitting for extended periods.

These (and more) facts can be found on the GOV.UK website by searching for 'UK physical activity guidelines'.



Adults aged 19–64 should do moderate intensity activity for 2.5 hours a week, according to UK Government guidelines

Who produces and uses lifestyle data on inactivity?

The ONS produces data in the UK on levels of activity and how these relate to various risks to physical health. Other organisations, such as the British Heart Foundation and Public Health England, use it to plan health promotion campaigns that encourage people to be more active.

The British Heart Foundation

The British Heart Foundation (www.bhf.org.uk/) is a UK heart charity. It was founded in 1961 and is funded by:

- ▶ donations from fundraisers
- ▶ money from cardiovascular research projects that help fight heart disease.

The British Heart Foundation aims to prevent people dying prematurely from heart disease. It uses data to highlight the importance of physical activity for cardiovascular health. For example, its report *Physical Activity Statistics 2015* includes data on:

- ▶ physical activity levels
- ▶ types of physical activity.

This data is broken down by UK country, gender, age and sedentary behaviour. Breaking it down this way means information can be used to target the groups that most need to become more active.

Public Health England

Public Health England (on GOV.UK website) was established to protect and improve the nation's health and wellbeing. It is sponsored by the UK Government's Department of Health. It uses data sources such as the annual *Health Survey for England* to provide information on inactivity. This information helps policy makers and practitioners deal with the risks to health such as obesity.

The cost of inactivity

Data on inactivity and its consequences can be used to estimate how much physical risks to health could cost the NHS. This helps the UK government to plan:

- ▶ how to cope financially
- ▶ campaigns that reduce inactivity (and therefore reduce the financial strain on the NHS).

For example, data has helped to estimate that by 2050, the health risks created by being overweight could cost the UK almost 50 billion pounds.

ACTIVITY

Flora is 9 years old. She is obese, hates exercise and uses any excuse she can to get out of PE. Do some research and draw up a set of recommendations on how much exercise she should be doing. What kinds of exercise would you recommend?

Write a plan and layout your recommendations in a table. Highlight the benefits of each exercise type you suggest and include at least one relevant statistic at the top of the plan.

Swap your plan in class with a partner to peer-assess.

Check my learning

- 1 State how data on inactivity is used to try to reduce risks to the health of the nation.
- 2 Explain why data on inactivity can be used by the UK government to help the NHS.