



## National Survey for Wales 2017-18: Population Health - Lifestyle

27 June 2018  
SB 37/2018

The National Survey for Wales (NSW) replaced the Welsh Health Survey (WHS) as the source of data on health-related lifestyle among adults from 2016-17. Results from the two surveys are [not comparable](#) due to the change in survey methodology. All results in this release relate to adults aged 16 and over.



**19%**

or 1 in 5 currently smoked  
(7% used e-cigarettes)



**18%**

or 1 in 5 drank over  
weekly guidelines



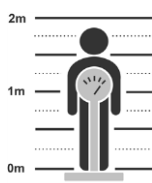
**23%**

or 1 in 4 ate 5 or more portions  
of fruit or vegetables the  
previous day



**53%**

or 1 in 2 were active for 150  
minutes or more the previous  
week



**60%**

or 3 in 5 were overweight or  
obese (including 22% obese)



**10%**

followed 0 or 1 healthy  
behaviours

### About this bulletin

This bulletin provides information about the health related lifestyles and behaviours of adults living in Wales from the National Survey for Wales 2017-18. This includes one of the 46 [National Indicators](#).

The full questionnaire is available on the [National Survey web pages](#).

Additional tables can be accessed via [StatsWales](#) and the [National Survey webpages](#).

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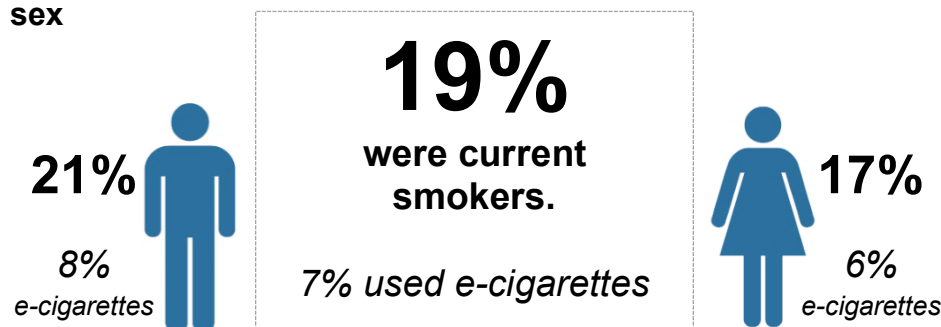


## Section 1: Smoking and e-cigarette use

At a  
Glance

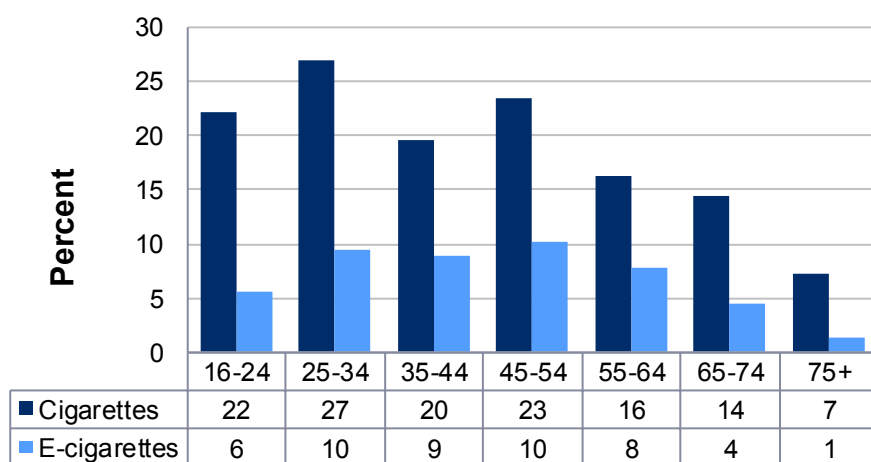
1 in 5 (19 per cent) adults reported that they currently smoked. Smoking was more common among men and adults in the most deprived areas and not so common among older age groups. 7 per cent of adults used e-cigarettes.

**Figure 1: Percentage of adults who reported being a current smoker/using e-cigarettes, by sex**



Men were more likely to smoke than women.

**Figure 2: Percentage of adults who reported being a current smoker/using e-cigarettes, by age**

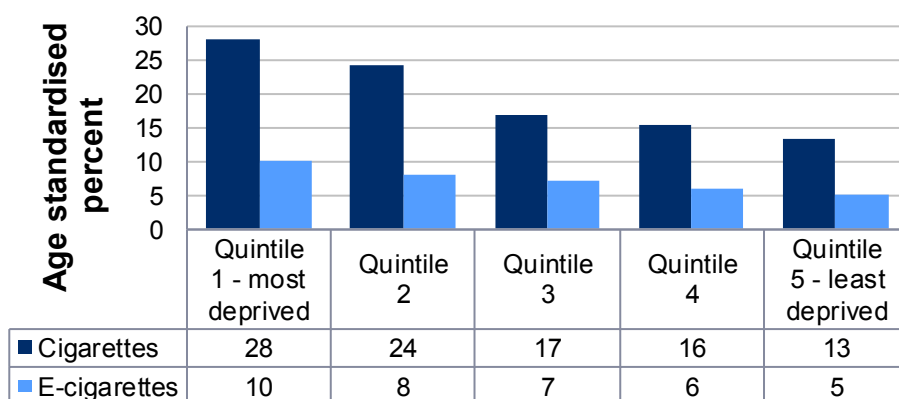


Smoking was most common among adults aged 25-34 (27 per cent).

Cigarette use among adults middle aged and older declined with age.

Adults aged 75 and over were less likely to smoke cigarettes or use e-cigarettes than adults of any other age.

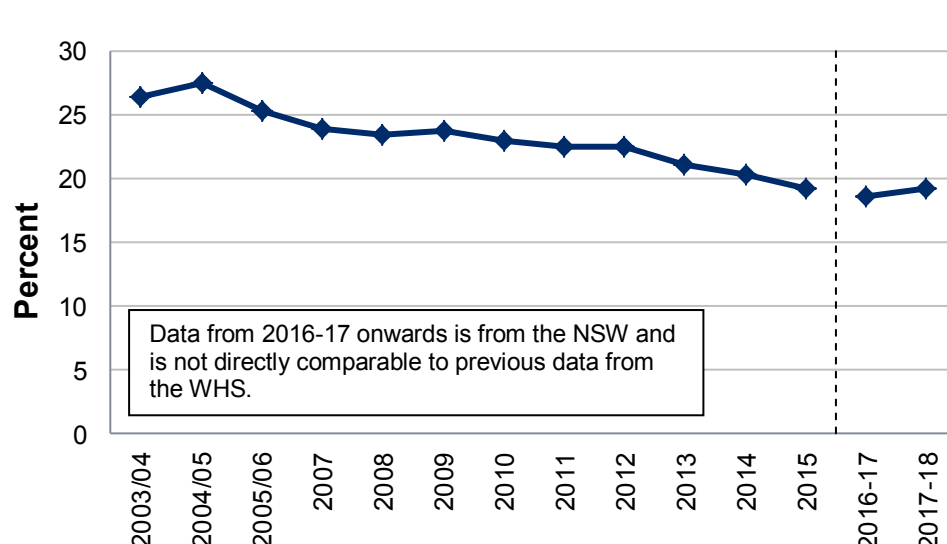
**Figure 3: Percentage of adults who reported being a current smoker/using e-cigarettes, by area deprivation**



Smoking rates increased with the level of deprivation. Adults in the most deprived fifth of areas were twice as likely to smoke (28 per cent) than adults in the least deprived areas (13 per cent).

Adults in the most deprived areas were also twice as likely to use e-cigarettes (10 per cent) than adults in the least deprived areas (5 per cent).

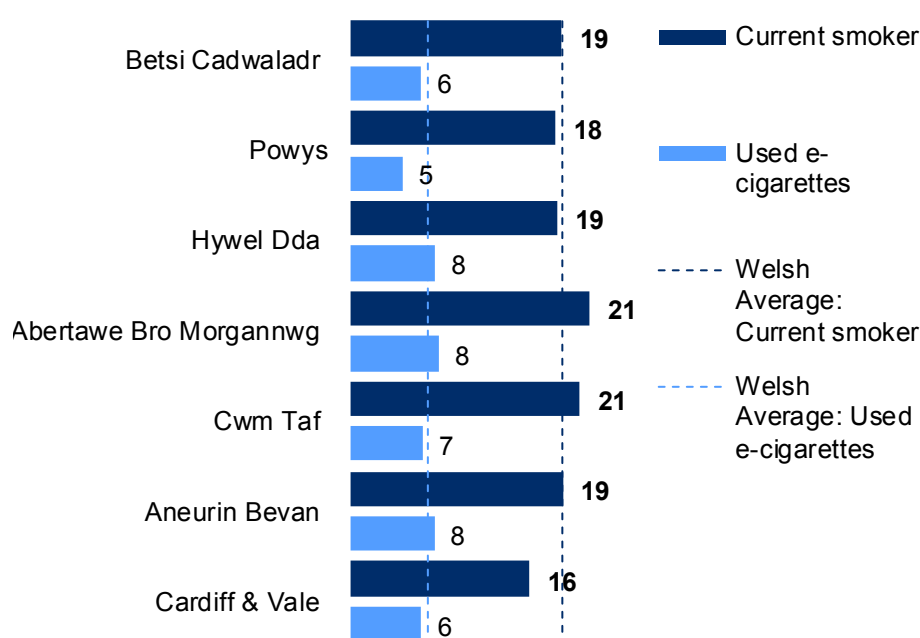
**Figure 4: Percentage of adults who reported being a current smoker, by year**



There was little change in smoking rates between 2016-17 and 2017-18 (the small increase of less than 1 percentage point was not statistically significant).

For context and a longer time trend, the former WHS showed a decrease in smoking rates between 2003/04 and 2015.

**Figure 5: Percentage of adults who reported being a current smoker/using e-cigarettes, by Health Board (age-standardised), 2016-17 and 2017-18 combined (a)**



The proportion of adults who smoked ranged from 16 per cent in Cardiff and Vale to 21 per cent in Abertawe Bro Morgannwg and Cwm Taf.

E-cigarette use ranged from 5 per cent in Powys to 8 per cent in Abertawe Bro Morgannwg, Hywel Dda and Aneurin Bevan.

(a) See [Local authority / health board estimates](#).

### Smoking status of e-cigarette users

- 47 per cent of current e-cigarette users were smokers, 50 per cent were ex-smokers, and 3 per cent had never smoked.

### Further information

Further information on cigarette and e-cigarette use can be found in the accompanying tables on [StatsWales](#) and on the [NSW webpages](#).



## Section 2:

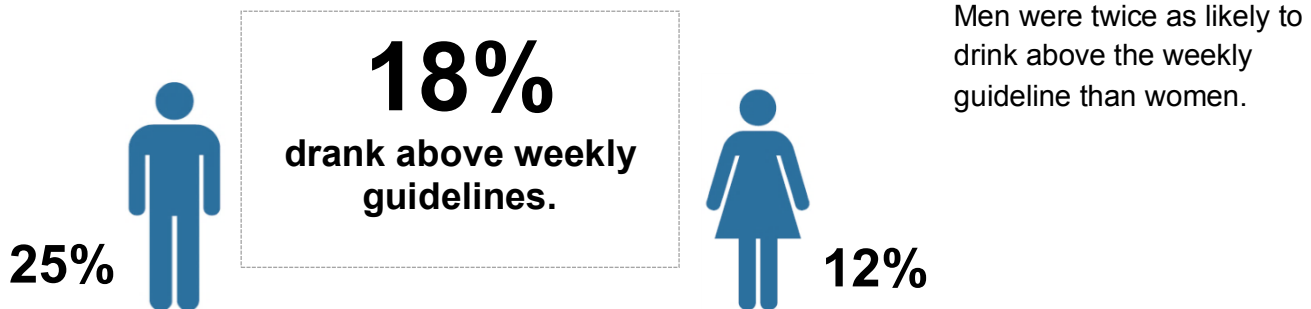
## Alcohol



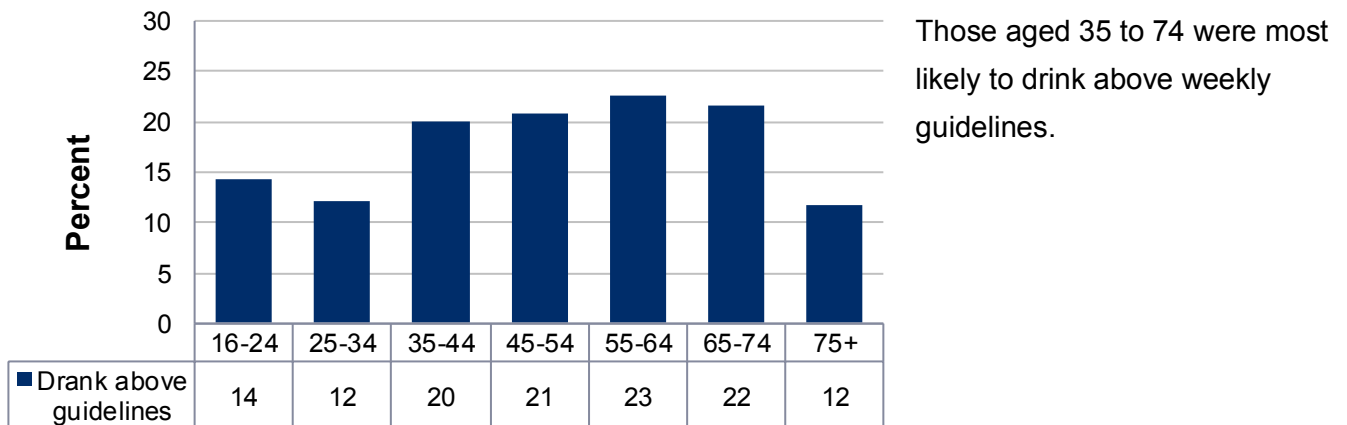
At a  
Glance

1 in 5 (18 per cent) adults reported that they drank more than the weekly guideline amount (that is, average weekly alcohol consumption above 14 units). Drinking above weekly guidelines was more common among men and those aged 35 to 74. Adults in the most deprived fifth of areas were less likely to drink above guidelines than adults in the least deprived areas.

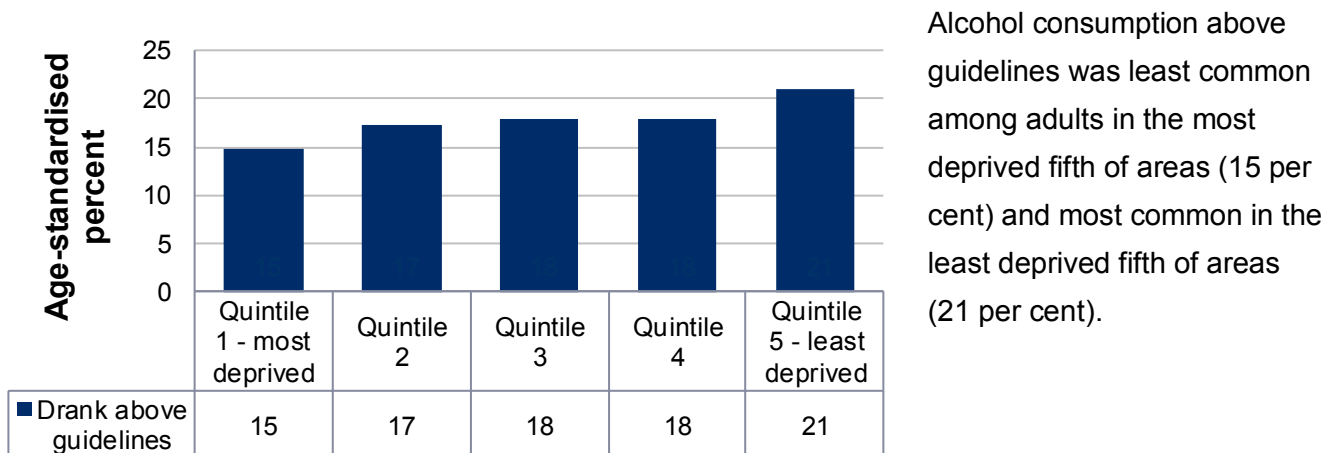
**Figure 6: Percentage of adults who reported drinking above weekly guidelines, by sex**



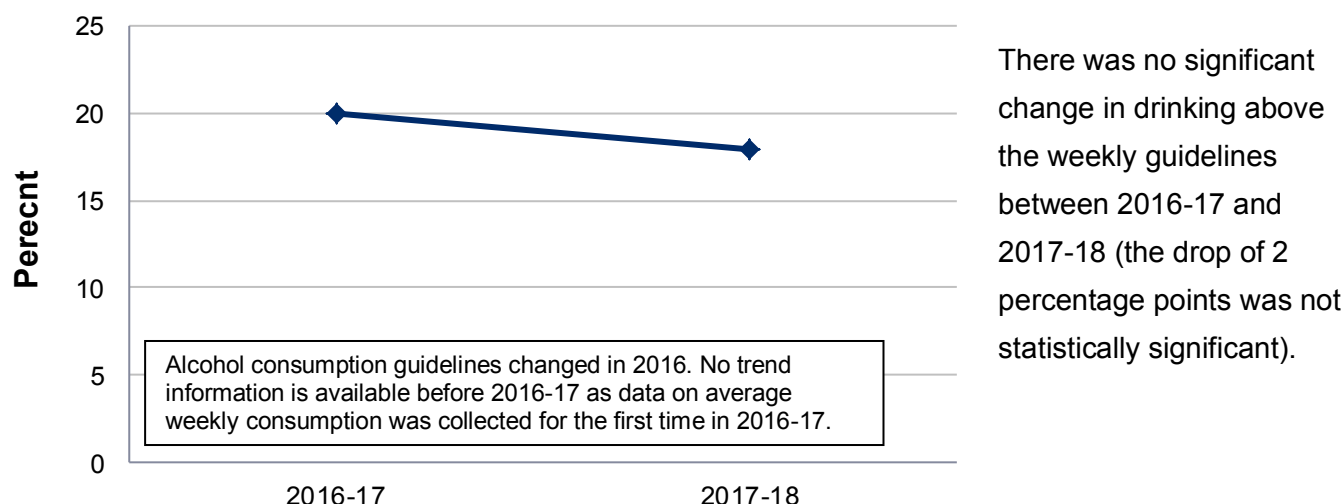
**Figure 7: Percentage of adults who reported drinking above weekly guidelines, by age**



**Figure 8: Percentage of adults who reported drinking above weekly guidelines, by area deprivation**

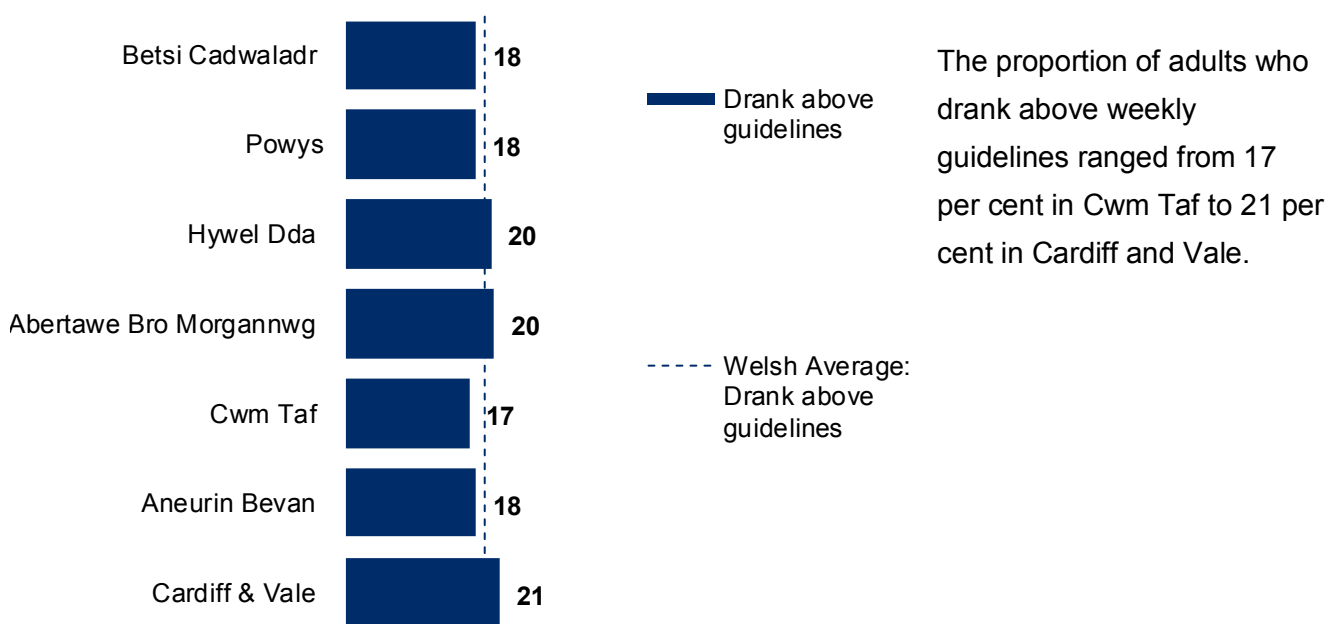


**Figure 9: Percentage of adults who reported drinking above weekly guidelines, by year**



For context and a longer time trend, the former Welsh Health Survey reported on the old daily alcohol guidelines (not more than 3 units (women) or 4 units (men)) and this showed a decrease in adults drinking over these levels between 2008 and 2015. NSW data shows that this decline continued between 2016-17 and 2017-18. Results from the two surveys should not be directly compared.

**Figure 10: Percentage of adults who reported drinking above weekly guidelines, by Health Board (age-standardised), 2016-17 and 2017-18 combined (a)**



(a) See [Local authority / health board estimates](#).

## Non-drinkers

- 19 per cent of adults reported that they did not drink alcohol, and a further 34 per cent reported drinking less than weekly.

## Maximum daily alcohol consumption

- 29 per cent of adults drank more than 3 units (women) or 4 units (men) on at least 1 day the previous week (these were the former daily guidelines which were replaced by weekly guidelines in 2016).

## Further information

Further information on alcohol consumption can be found in the accompanying tables on [StatsWales](#) and on the [NSW webpages](#).

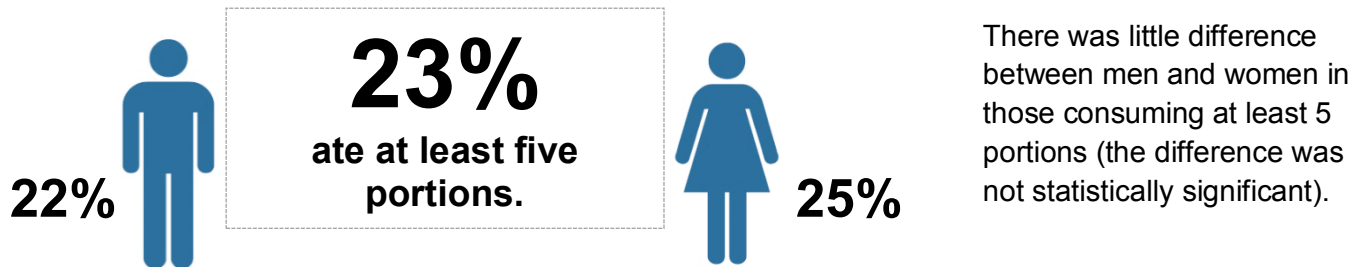


## Section 3: Fruit and vegetable consumption

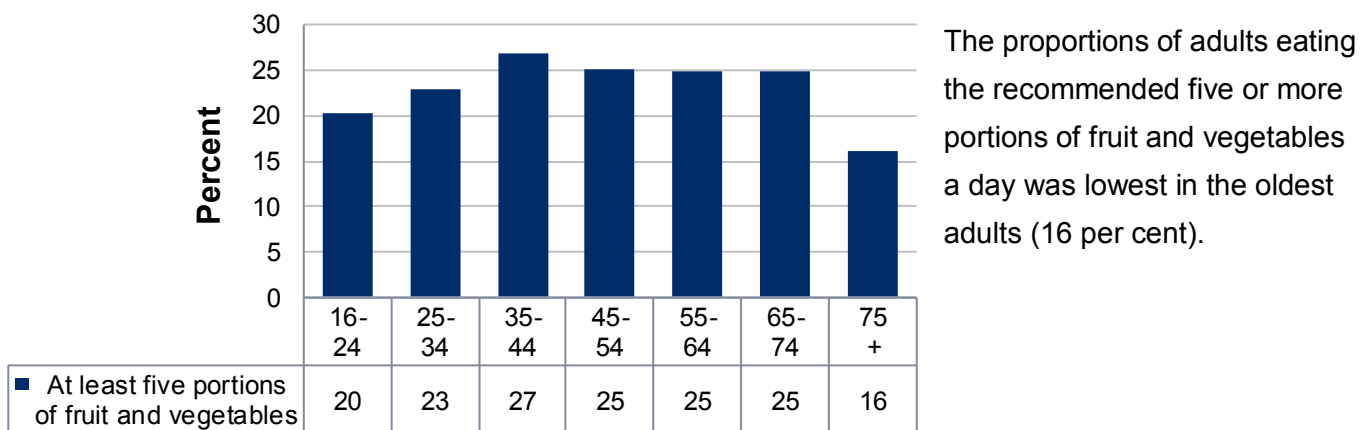


1 in 4 (23 per cent) adults reported that they ate at least five portions of fruit or vegetables the previous day. Adults in less deprived areas were more likely to eat 5 or more portions.

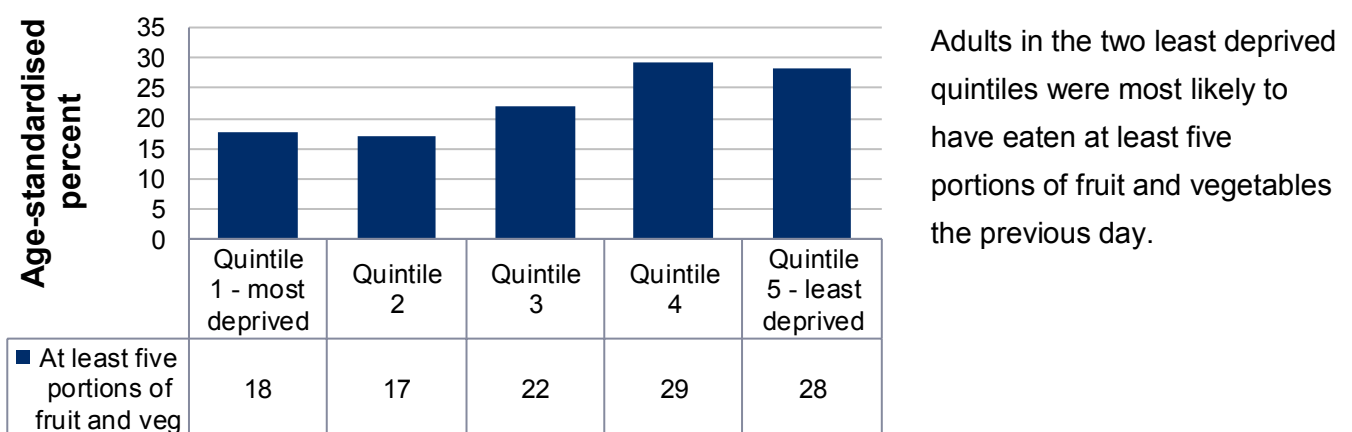
**Figure 11: Percentage of adults who reported eating five or more portions of fruit and vegetables the previous day, by sex**



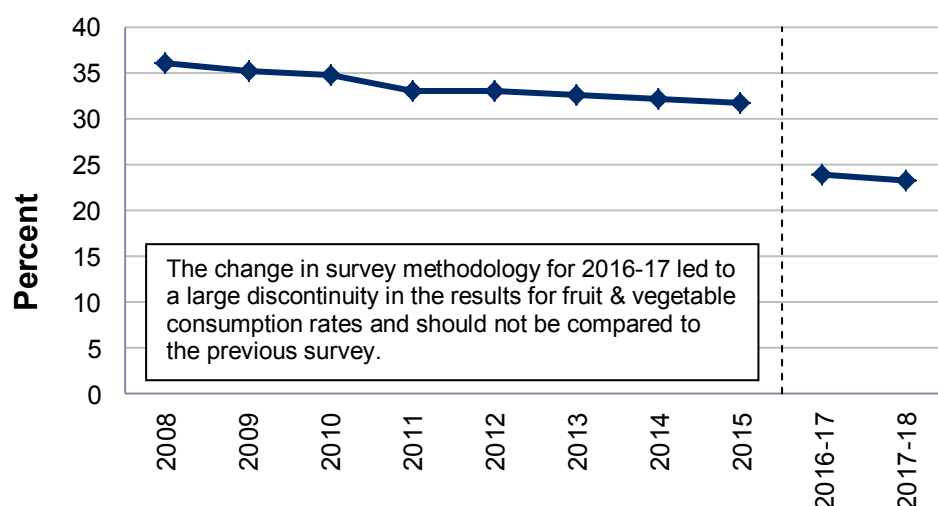
**Figure 12: Percentage of adults who reported eating five or more portions of fruit and vegetables the previous day, by age**



**Figure 13: Percentage of adults who reported eating five or more portions of fruit and vegetables the previous day, by area deprivation**



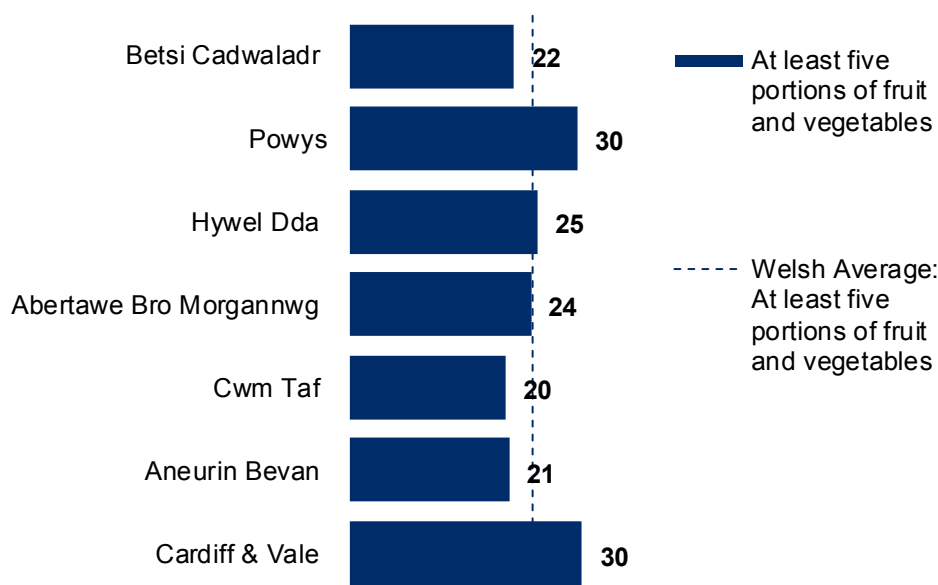
**Figure 14: Percentage of adults who reported eating five or more portions of fruit and vegetables the previous day, by year**



There was little change in fruit and vegetable consumption between 2016-17 and 2017-18 (the small decrease of less than 1 percentage point was not statistically significant).

For context and a longer time trend, the former WHS showed a slight decrease in fruit and vegetable consumption between 2008 and 2015. Results from the two surveys should not be directly compared.

**Figure 15: Percentage of adults who reported eating five or more portions of fruit and vegetables the previous day, by Health Board (*age-standardised*), 2016-17 and 2017-18 combined (a)**



The proportion of adults who consumed at least 5 portions of fruit and vegetables the previous day ranged from 20 per cent in Cwm Taf to 30 per cent in Cardiff and Vale and Powys.

(a) See [Local authority / health board estimates](#)

### Consumed no fruit or vegetables

- 9 per cent of adults in Wales did not consume any fruit or vegetables the previous day.

### Further information

Further information on fruit and vegetable consumption can be found in the accompanying tables on [StatsWales](#) and on the [NSW webpages](#).

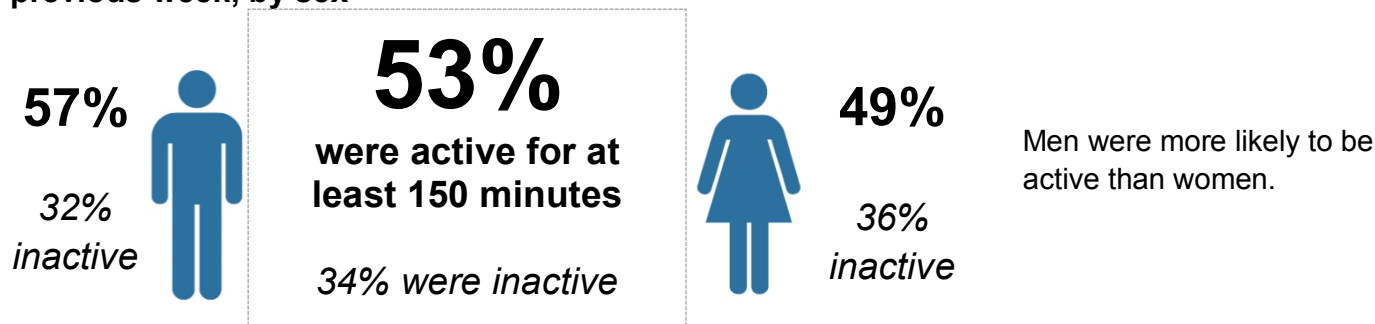


## Section 4: Physical activity

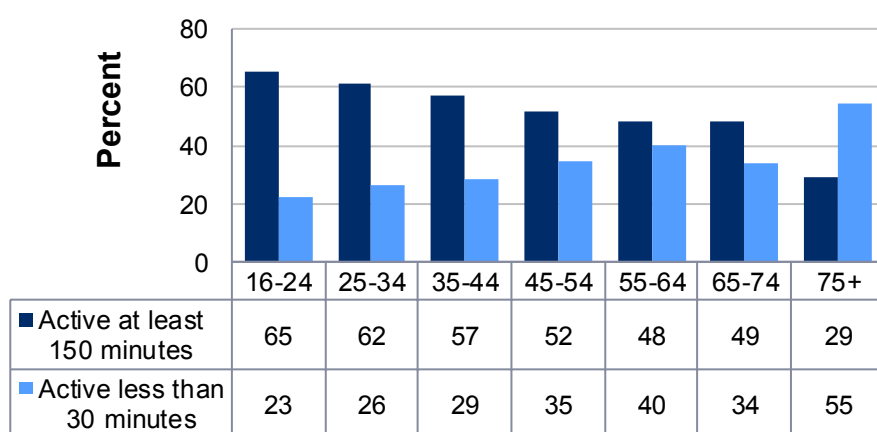


Over half (53 per cent) of all adults reported that they had been active for at least 150 minutes in the previous week. Men were more likely to have been active than women. 34 per cent of adults were inactive (active less than 30 minutes the previous week). Inactivity was highest among older adults and adults in more deprived areas.

**Figure 16: Percentage of adults who reported being active for at least 150 minutes in the previous week, by sex**



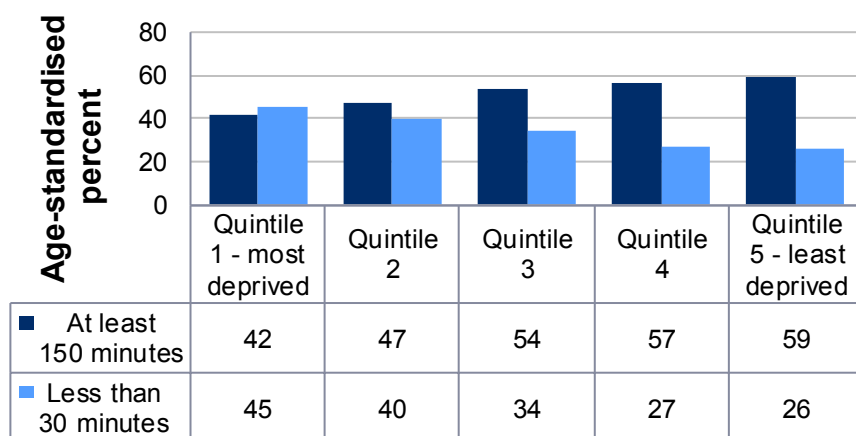
**Figure 17: Percentage of adults who reported being active for at least 150 minutes or inactive (less than 30 minutes) in the previous week, by age**



Generally, the proportion of adults who reported doing at least 150 minutes of moderate or high intensity exercise in the previous week was highest among younger adults and decreased with age thereafter.

Rates of inactivity were highest among older adults.

**Figure 18: Percentage of adults who reported being active for at least 150 minutes or inactive (less than 30 minutes) in the previous week, by area deprivation**

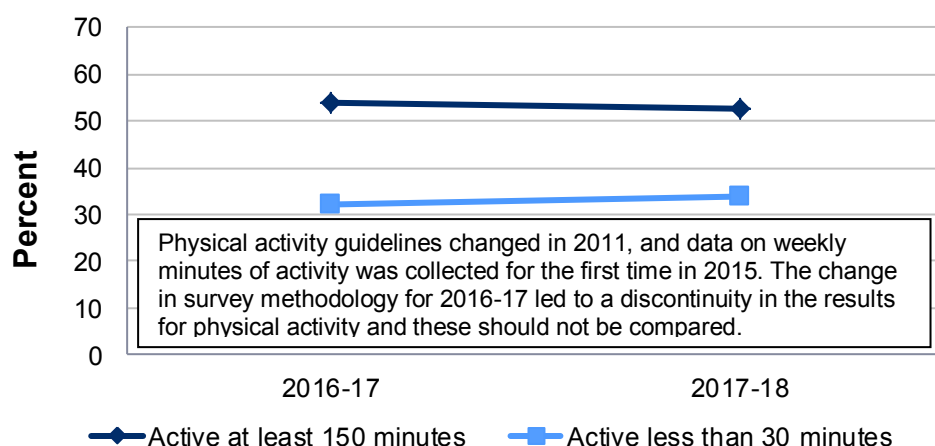


The proportion of adults who were active for at least 150 minutes in the previous week increased as deprivation decreased.

Inactivity rates increased as deprivation increased.

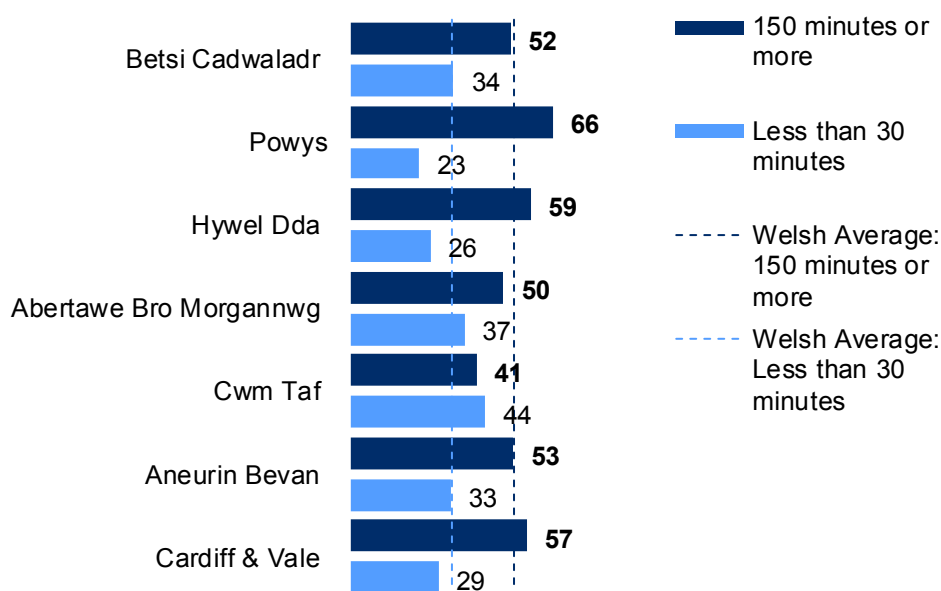


**Figure 19: Percentage of adults who reported being active (at least 150 minutes) or inactive (less than 30 minutes) the previous week, by year**



There was little change in physical activity between 2016-17 and 2017-18 (the changes were not statistically significant).

**Figure 20: Percentage of adults who reported being active for at least 150 minutes or inactive (active less than 30 minutes) in the previous week, by Health Board (age-standardised), 2016-17 and 2017-18 combined (a)**



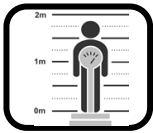
The proportion of adults who were active for at least 150 minutes the previous week ranged from 41 per cent in Cwm Taf to 66 per cent in Powys .

The proportion of inactive adults ranged from 23 per cent in Powys to 44 per cent in Cwm Taf.

(a) See [Local authority / health board estimates](#)

## Further information

Further information can be found in the accompanying tables on [StatsWales](#) and on the [NSW webpages](#).

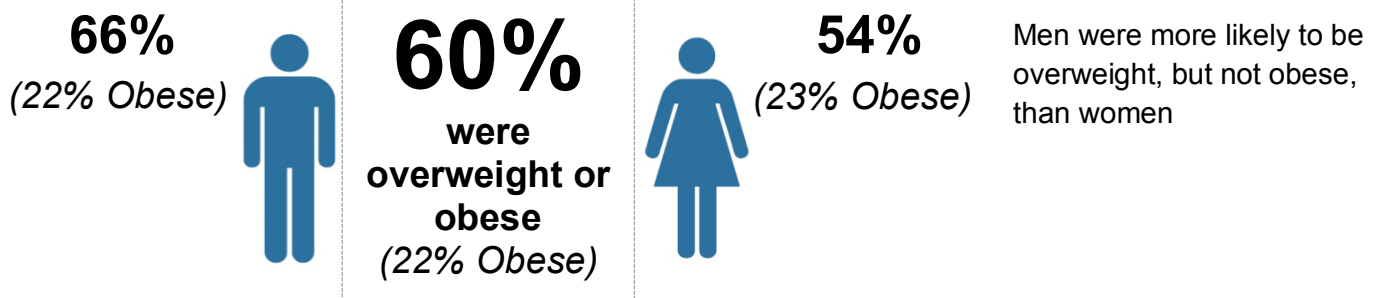


## Section 5: Body Mass Index

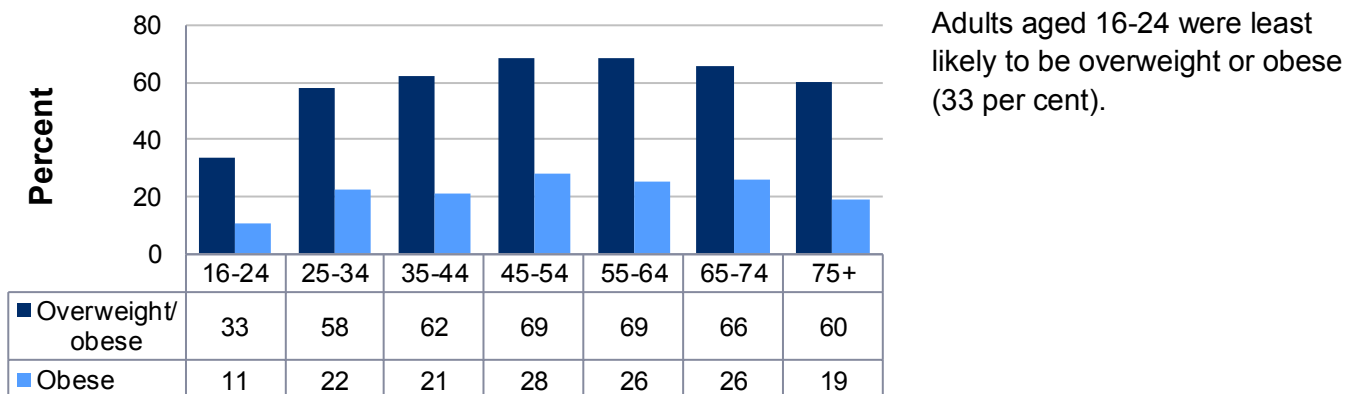


Over half (60 per cent) of adults were classified as overweight or obese including 22 per cent who were obese. Men were more likely to be overweight, but not obese, than women. Rates of adults who were overweight or obese increased with the level of area deprivation. Young adults were least likely to be overweight or obese.

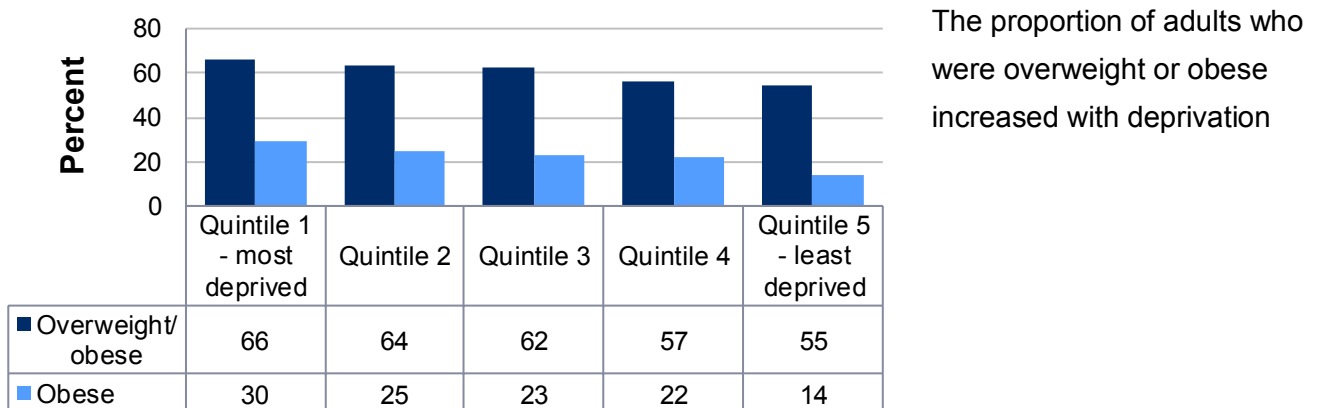
**Figure 21: Percentage of adults who were overweight or obese, by sex**



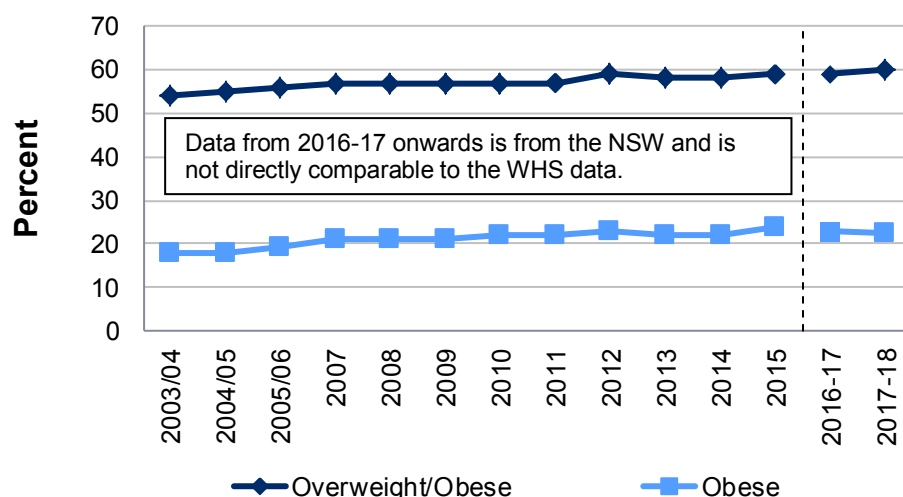
**Figure 22: Percentage of adults who were overweight or obese, by age**



**Figure 23: Percentage of adults who were overweight or obese, by area deprivation**



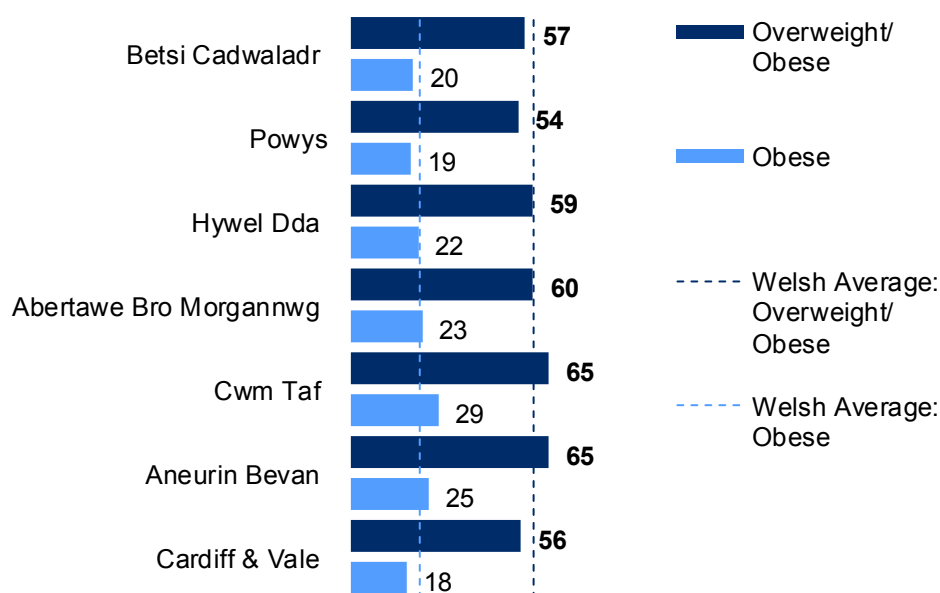
**Figure 24: Percentage of adults who were overweight or obese, by year**



There was little change in overweight / obese between 2016-17 and 2017-18 (the changes were not statistically significant).

For context and a longer time trend, the former WHS showed an increase in overweight / obesity between 2003/04 and 2015.

**Figure 25: Percentage of adults who were overweight or obese, by Health Board (age-standardised), 2016-17 and 2017-18 combined (a)**



The proportion of adults who were overweight or obese ranged from 54 per cent in Powys to 65 per cent in Cwm Taf and Aneurin Bevan.

The proportion of adults who were obese ranged from 18 per cent in Cardiff and Vale to 29 per cent in Cwm Taf.

(a) See [Local authority / health board estimates](#)

### Healthy body weight and underweight:

- Two in five adults living in Wales were classified as having a healthy body weight (38 per cent).
- 2 per cent were underweight.

### Mean height and weight, by gender:

|                  | Men | Women | Persons |
|------------------|-----|-------|---------|
| Mean height (cm) | 178 | 163   | 170     |
| Mean weight (kg) | 86  | 71    | 78      |

### Further information

Further information can be found in the accompanying tables on [StatsWales](#) and on the [NSW webpages](#).



## Section 6:

### Multiple healthy lifestyle behaviours

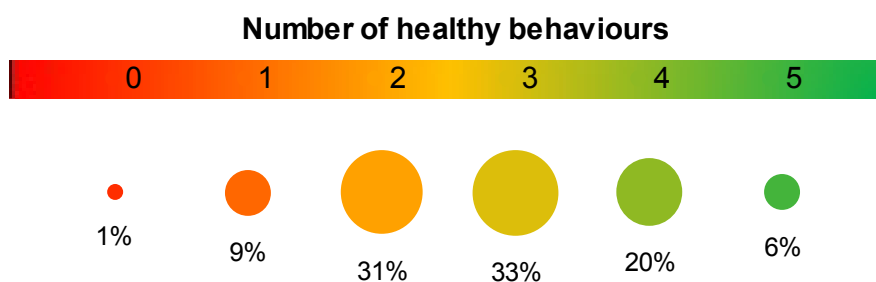
#### Five Healthy Lifestyle behaviours:

- ☐ Not Smoking
- ☐ Not drinking above weekly guidelines
- ☐ Eating five or more portions of fruit and vegetables the previous day
- ☐ Being physically active for at least 150 minutes in the previous week
- ☐ Maintaining a healthy weight / body mass index



10 per cent of adults exhibited fewer than two of the five healthy lifestyle behaviours. Men, middle aged adults, and those in the most deprived areas were most likely to exhibit fewer than two of the behaviours.

Figure 26: Percentage of adults by number of healthy behaviours



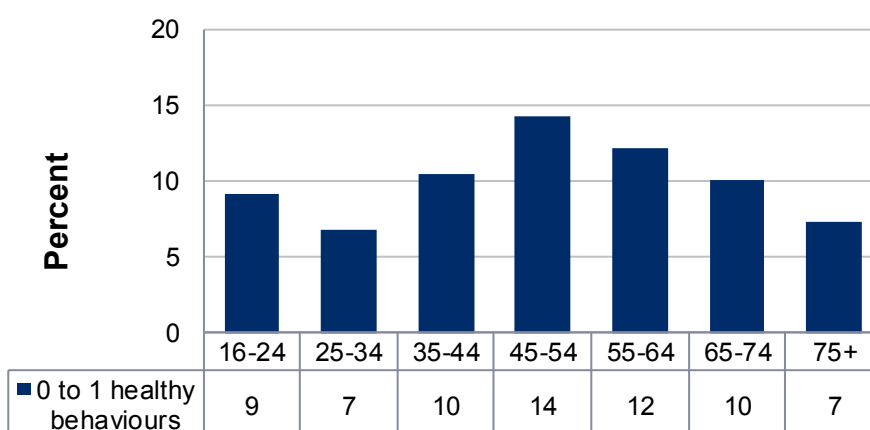
The majority of adults in Wales (64 per cent) exhibited either two or three of the five healthy behaviours.

Figure 27: Percentage of adults who had 0 to 1 of the 5 healthy lifestyles, by sex



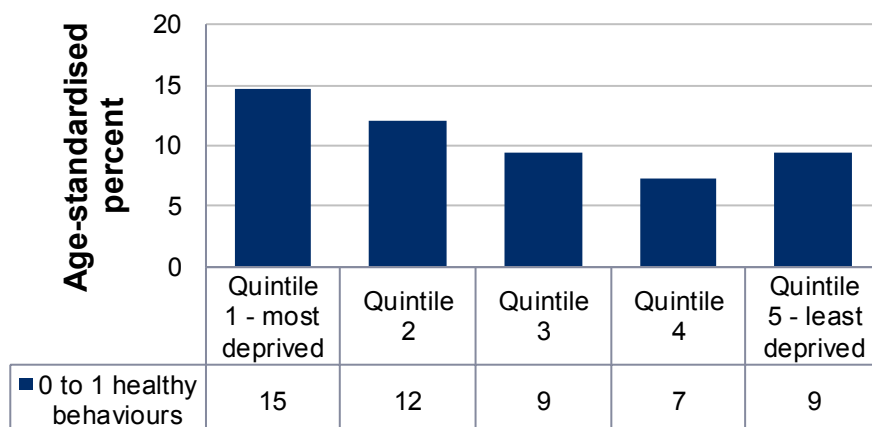
Men were more likely to exhibit fewer than two of the five healthy lifestyle behaviours than women.

Figure 28: Percentage of adults who had 0 to 1 of the 5 healthy lifestyles, by age



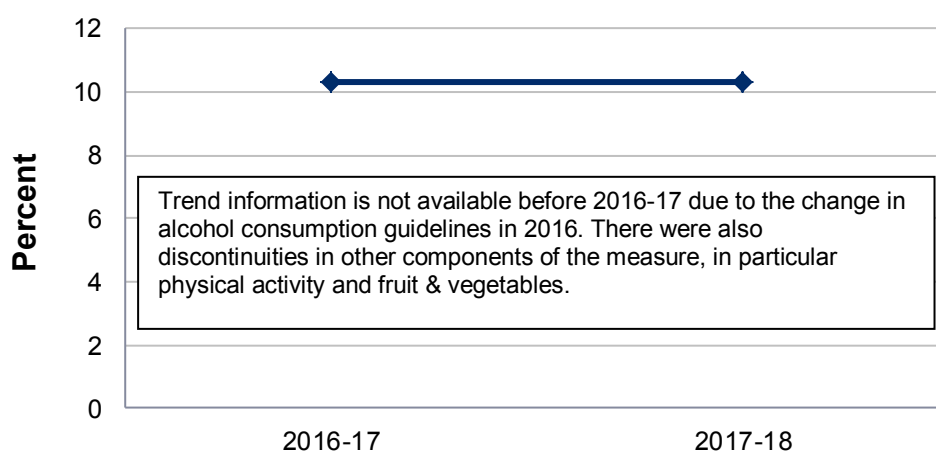
The proportion of adults exhibiting fewer than two of the five healthy lifestyle behaviours was highest in middle age.

**Figure 29: Percentage of adults who had 0 to 1 of the 5 healthy lifestyles, by area deprivation**



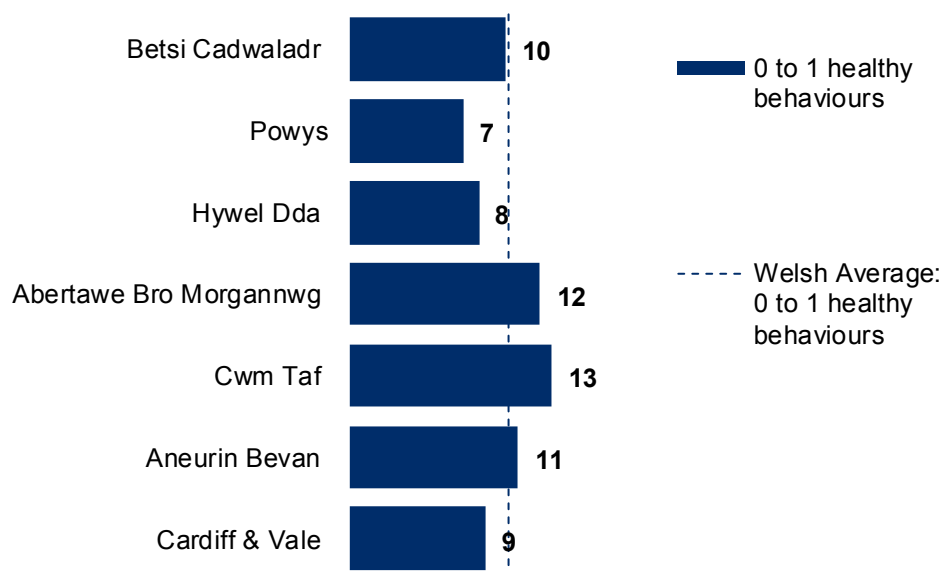
The most deprived quintile had the highest proportion of adults exhibiting fewer than two of the five healthy lifestyle behaviours (15 per cent).

**Figure 30: Percentage of adults who had 0 to 1 of the 5 healthy lifestyles, by year**



There was no change in the proportion of adults who exhibiting fewer than two healthy lifestyle behaviours between 2016-17 and 2017-18.

**Figure 31: Percentage of adults who had 0 to 1 of the 5 healthy lifestyles, by Health Board (age-standardised), 2016-17 and 2017-18 combined (a)**



The proportion of adults who exhibited 0 to 1 of the five healthy lifestyle behaviours ranged from 7 per cent in Powys to 13 per cent in Cwm Taf.

(a) See [Local authority / health board estimates](#)

## Further information

Further information can be found in the accompanying tables on [StatsWales](#) and on the [NSW webpages](#).

## Summary Table: Health-related lifestyle behaviours - summary of key variables, adults aged 16 & over (a)

Per cent

|   | Smoker    | E-cigarette user | Weekly alcohol consumption above 14 units | Ate 5 portions fruit & veg | Active 150 minutes in week | Active less than 30 minutes in week | Overweight or obese | Obese     | 0 or 1 healthy behaviours |
|---|-----------|------------------|---|----------------------------|----------------------------|-------------------------------------|---------------------|-----------|---------------------------|
| <b>All aged 16+</b>                                     | <b>19</b> | <b>7</b>         | <b>18</b>                                 | <b>23</b>                  | <b>53</b>                  | <b>34</b>                           | <b>60</b>           | <b>22</b> | <b>10</b>                 |
| <b>By sex:</b>  |           |                  |   |                            |                            |                                     |                     |           |                           |
| Men   | 21        | 8                | 25  | 22                         | 57                         | 32                                  | 66                  | 22        | 13                        |
| Women   | 17        | 6                | 12  | 25                         | 49                         | 36                                  | 54                  | 23        | 8                         |
| <b>By age:</b>  |           |                  |   |                            |                            |                                     |                     |           |                           |
| 16-44   | 23        | 8                | 15  | 23                         | 61                         | 26                                  | 52                  | 18        | 9                         |
| 45-64   | 20        | 9                | 22  | 25                         | 50                         | 37                                  | 69                  | 27        | 13                        |
| 65+   | 11        | 3                | 17  | 21                         | 40                         | 43                                  | 63                  | 23        | 9                         |
| <b>By WIMD deprivation quintile (age-standardised):</b> |           |                  |   |                            |                            |                                     |                     |           |                           |
| Quintile 1 (most deprived)                              | 28        | 10               | 15  | 18                         | 42                         | 45                                  | 66                  | 30        | 15                        |
| Quintile 2  | 24        | 8                | 17  | 17                         | 47                         | 40                                  | 64                  | 25        | 12                        |
| Quintile 3  | 17        | 7                | 18  | 22                         | 54                         | 34                                  | 62                  | 23        | 9                         |
| Quintile 4  | 16        | 6                | 18  | 29                         | 57                         | 27                                  | 57                  | 22        | 7                         |
| Quintile 5 (least deprived)                             | 13        | 5                | 21  | 28                         | 59                         | 26                                  | 55                  | 14        | 9                         |
| <b>By Local Health Board (age-standardised) (b):</b>    |           |                  |   |                            |                            |                                     |                     |           |                           |
| Betsi Cadwaladr   | 19        | 6                | 18  | 22                         | 52                         | 34                                  | 57                  | 20        | 10                        |
| Powys   | 18        | 5                | 18  | 30                         | 66                         | 23                                  | 54                  | 19        | 7                         |
| Hywel Dda   | 19        | 8                | 20  | 25                         | 59                         | 26                                  | 59                  | 22        | 8                         |
| Abertawe Bro Morgannwg                                  | 21        | 8                | 20  | 24                         | 50                         | 37                                  | 60                  | 23        | 12                        |
| Cwm Taf   | 21        | 7                | 17  | 20                         | 41                         | 44                                  | 65                  | 29        | 13                        |
| Aneurin Bevan   | 19        | 8                | 18  | 21                         | 53                         | 33                                  | 65                  | 25        | 11                        |
| Cardiff & Vale  | 16        | 6                | 21  | 30                         | 57                         | 29                                  | 56                  | 18        | 9                         |
| <b>By year:</b>   |           |                  |   |                            |                            |                                     |                     |           |                           |
| 2016-17   | 19        | 7                | 20  | 24                         | 54                         | 32                                  | 59                  | 23        | 10                        |
| 2017-18   | 19        | 7                | 18  | 23                         | 53                         | 34                                  | 60                  | 22        | 10                        |

National Survey for Wales, 2017-18

a) See definitions below for explanations of age-standardisation and socio-demographic factors

b) Figures for LHBs are based on two years of data combined (2016-17 and 2017-18)

## **Definitions**

### **Smoking**

The survey asked adults whether they smoked (daily or occasionally), used to smoke (daily or occasionally), or had never smoked. Throughout the report, 'current smokers' are those who responded saying they smoked either daily or occasionally, 'ex-smokers' are those who responded to the survey saying that they used to smoke daily or occasionally and 'non-smokers' were those who responded to have never smoked and ex-smokers.

For e-cigarettes, respondents were asked if they currently used or had ever used an e-cigarette and whether this was daily or occasionally.

### **Alcohol consumption**

The survey asked adults a set of questions about their alcohol consumption.

As announced in the UK Chief Medical Officers' Low Risk Drinking Guidelines during 2016, a weekly alcohol guideline was recommended to replace the former daily guidelines. This new guideline for both men and women suggests drinking no more than 14 units a week on a regular basis, therefore this release measures responses to alcohol intake against this weekly guideline. The former guidelines suggested that men should not regularly drink more than 3 – 4 units of alcohol per day, and women not more than 2 – 3 units. Details of daily consumption are included in the additional tables.

Respondents were asked how often they drank alcohol in the past 12 months and, if never, whether they had always been a non-drinker.

Respondents were asked to indicate how often they had consumed each type of alcohol during the past 12 months, and how much they had usually consumed; they were also asked how many measures of each type of alcohol they had consumed on their heaviest drinking day the previous week. The following table was used to calculate the average weekly units drunk, and the units drunk on the heaviest drinking day in the previous week.

Some respondents who did drink stated that their usual weekly consumption was none – this may lead to an underestimate in weekly drinking estimates.

| <b>Type of drink</b>                                | <b>Measure</b>                     | <b>Alcohol units</b> |
|---|------------------------------------|----------------------|
| Normal strength beer, lager, stout, cider or shandy | Pints                              | 2                    |
|   | Large cans                         | 2                    |
|   | Small cans                         | 1.5                  |
|   | Bottles                            | 1.5                  |
| Strong beer, lager, stout or cider                  | Pints                              | 4                    |
|   | Large cans                         | 3                    |
|   | Small cans                         | 2                    |
|   | Bottles                            | 2                    |
| Wine  | Large glass (250ml)                | 3                    |
|   | Standard glass (175ml)             | 2                    |
|   | Small glass (125ml)                | 1.5                  |
|   | Bottles (750ml)                    | 9                    |
| Spirits or liqueurs                                 | Measures or shots (single measure) | 1                    |
|   |                                    |                      |
| Sherry or martini                                   | Glass                              | 1                    |
| Alcopops  | Small can                          | 1.5                  |
|   | Standard bottle (275ml)            | 1.5                  |
|   | Large bottle (700ml)               | 3.5                  |

Weekly consumption of each type of drink was calculated by multiplying the units usually consumed on a day when that type of alcohol was drunk by a factor representing the frequency with which it was drunk. The results for each type of drink were added together to give an overall weekly figure. The frequency multipliers used were:

| <b>Drinking frequency</b>   | <b>Multiplying factor</b> |
|-----------------------------|---------------------------|
| Almost every day            | 7.0                       |
| 5 or 6 times a week         | 5.5                       |
| 3 or 4 times a week         | 3.5                       |
| Once or twice a week        | 1.5                       |
| Once or twice a month       | 0.375                     |
| Once every couple of months | 0.115                     |
| Once or twice a year        | 0.029                     |

Health-related behaviours can be a complex area to measure and there may be some differences between what people report and what they do (for instance, they may tend to underestimate their alcohol consumption). However, survey data still provides a reliable means of comparing patterns for these behaviours between different groups and over time.



## Fruit and vegetable consumption

The survey asked adults questions about a range of food items to determine the overall amounts of fruit, vegetables and pulses consumed the previous day.

For each food item, respondents were asked whether they had eaten it and, if so, how much they had consumed. Everyday measures were given for each food item: for example, tablespoons of vegetables, small bowls of salad, or medium sized fruit (such as apples). Each question provided a definition of which foods were to be included. Guidelines recommend eating at least five portions of a variety of fruit and vegetables each day. To conform with these guidelines, the questions and analysis were based on the concept of portions of 80g each and the information collected was converted into standard portions at the analysis stage.

The table that follows shows portion sizes for the different food items included in the questions.

| Food item   | Portion size       |
|---|--------------------|
| Vegetables (fresh, frozen or tinned)                            | 3 tablespoons      |
| Pulses  | 3 tablespoons      |
| Salad   | 1 small bowl       |
| Dishes made mainly from vegetables or pulses                    | 3 tablespoons      |
| Very large fruit, such as melon                                 | 1 average slice    |
| Large fruit, such as grapefruit                                 | Half a fruit       |
| Medium fruit, such as apples, bananas, oranges                  | 1 fruit            |
| Small fruit, such as plums, satsumas                            | 2 fruits           |
| Very small fruit, such as grapes, berries                       | 2 average handfuls |
| Dried fruit, such as raisins, apricots                          | 1 average handful  |
| Frozen/tinned fruit   | 3 tablespoons      |
| Dishes made mainly from fruit such as fruit salad or fruit pies | 3 tablespoons      |
| Fruit juice   | 1 small glass      |

At the analysis stage, rules for certain foods were applied: respondents could obtain no more than one portion of their daily intake from fruit juice, one portion from pulses, and one portion from dried fruit. These restrictions are in line with guidelines, which emphasise that a variety of fruit and vegetables should be consumed.

Health-related behaviours can be a complex area to measure and there may be some differences between what people report and what they do. However, survey data still provides a reliable means of comparing patterns for these behaviours between different groups and over time.

## Physical activity

Physical activity guidelines recommend that adults should aim to do at least 150 minutes of moderate activity during the week. Alternatively, comparable benefits can be achieved by 75 minutes of vigorous activity, or an equivalent combination of the two.

The questions asked respondents on what days in the previous week they walked, completed some moderate physical activity and completed some vigorous physical activity for at least 10 minutes at a time and then they were asked how much time, on average, they spent doing these activities each time. The respondents were also asked about their walking pace and the effort involved. Walking was included as a

moderate activity for those walking at a 'fairly brisk' or 'fast' usual pace. For those aged 65 and over, walking at any pace was included if the effort was enough to make them breathe faster, feel warm or sweat. The information was combined to provide an estimate of the equivalent number of moderate minutes of activity undertaken the previous week. Those with the equivalent of 150 minutes or more moderate activity were classed as meeting the guidelines. Results for those who were inactive are also shown, which for the purposes of this report was defined as those with the equivalent of less than 30 minutes moderate activity the previous week.

Health-related behaviours can be a complex area to measure and there may be some differences between what people report and what they do (for instance, they may tend to overestimate their levels of physical activity). However, survey data still provides a reliable means of comparing patterns for these behaviours between different groups and over time.

## Body Mass Index

The survey asked adults to report their height and their weight. In order to define overweight or obesity, a measurement is required which allows for differences in weight due to height. The Body Mass Index (BMI) is calculated as weight (kg) divided by squared height (m<sup>2</sup>). However, BMI does not distinguish between mass due to body fat and mass due to muscular physique, nor does it take account of the distribution of fat. BMI was calculated for all respondents, excluding pregnant women, with valid height and weight measurements and classified into the following BMI groups:

| BMI (kg/m <sup>2</sup> ) | Description    |
|--------------------------|----------------|
| Less than 18.5           | Underweight    |
| 18.5 to under 25         | Healthy weight |
| 25 to under 30           | Overweight     |
| 30 and over              | Obese          |
| 40 and over              | Morbidly obese |

Height and weight of respondents are self-reported, and there is evidence to show that some people tend to under-report weight and/or over-report height, resulting in an under-estimation of the prevalence of overweight and obesity<sup>1 2</sup>.

## Welsh Index of Multiple Deprivation

The Welsh Index of Multiple Deprivation (WIMD) is used as the official measure of deprivation in Wales. Deprivation is a wider concept than poverty and refers to wider problems caused by a lack of resources and opportunities. The WIMD is constructed from eight different types of deprivation. These are: income, housing, employment, access to services, education, health, community safety and physical environment. Wales is divided into 1,909 Lower-Layer Super Output Areas (LSOA) each having about 1,600 people. Deprivation ranks have been worked out for each of these areas: the most deprived LSOA is ranked 1, and the least deprived 1,909. Respondents to the survey have been split into five groups based on the LSOA they live in (with 20 per cent of LSOAs allocated to each group). Results are compared for the five groups.

<sup>1</sup> World Health Organization, Geneva, 2000: [http://whqlibdoc.who.int/trs/WHO\\_TRS\\_894.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_894.pdf)

<sup>2</sup> Roberts, RJ. (1995) Can self-reported data accurately describe the prevalence of overweight? Public Health; 109 (4): 275-284 [Used Welsh data]

## Age-standardisation

Age standardisation has been used in selected analysis in order to enable groups to be compared after adjusting for the effects of any differences in their age distributions. When different sub-groups are compared in respect of a variable on which age has an important influence (such as health), any differences in age distributions between these sub-groups are likely to affect the observed differences in the proportions of interest.

Age standardisation was carried out using the direct standardisation method. The standard population to which the age distribution of sub-groups was adjusted was adapted from the 2013 European Standard Population. Calculations were done using Stata. The age-standardised proportion  $p'$  was calculated as follows, where  $p_i$  is the age specific proportion in age group  $i$  and  $N_i$  is the standard population size in age group  $i$ :

$$p' = \frac{\sum_i N_i p_i}{\sum_i N_i}$$

Therefore  $p'$  can be viewed as a weighted mean of  $p_i$  using the weights  $N_i$ . Age standardisation was carried out using the age groups: 16-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75 and over.

## Key quality information

### Comparability with results from the former Welsh Health Survey

The National Survey for Wales has replaced the Welsh Health Survey as the source of data on health-related lifestyles among adults. Results from the two surveys are not comparable due to the change in survey methodology. The size of the discontinuities can vary depending on the topic. Some additional information is given in a [discontinuity report](#) and [Statistical Article](#) looking at trend discontinuities for a selection of health-related lifestyle behaviours.

### Background

The National Survey for Wales 2017-18 was carried out by the Office for National Statistics on behalf of the Welsh Government. The results reported in this bulletin are based on interviews completed in 2017-18 (1 April 2017 – 31st March 2018).

23,517 addresses were chosen randomly from the Royal Mail's Small User Postcode Address File. Interviewers visited each address and randomly selected one adult (aged 16+) in the household. They then carried out a 45-minute face-to-face interview with them, covering a range of views, behaviours, and characteristics. A total of 11,381 interviews were achieved with a response rate of 54.5 per cent. Of these, approximately 5,650 (about half of the sample) were asked the adult lifestyle questions. This is opposed to 2016-17 where the full sample was asked these questions. The change to the half sample will have an impact on confidence intervals, as the smaller the sample size the wider the confidence interval (see [Sampling variability](#)).

### Interpreting the results

Percentages quoted in this release are based on those respondents who provided an answer to the relevant question only. Missing answers occur for several reasons, including refusal or an inability to answer a particular question and cases where the question is not applicable to the respondent.

The results of the National Survey are weighted to compensate for unequal selection probabilities and differential non-response (i.e. to ensure that the age and sex distribution of the final dataset matches that of the Welsh population).

### Quality report

A summary [quality report](#) is available, containing more detailed information on the quality of the survey as well as a summary of the methods used to compile the results.

### Technical report

More detailed information on the survey methodology is set out in the [technical report](#) for the survey.

### Sampling variability

Estimates from the National Survey are subject to a margin of uncertainty. Part of the uncertainty comes from the fact that any randomly-selected sample of the population will give slightly different results from the results that would be obtained if the whole population was surveyed. This is known as sampling error.<sup>3</sup> Confidence intervals can be used as a guide to the size of the sampling error. These intervals are calculated around a survey estimate and give a range within which the true value is likely to fall. In 95 per

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<sup>3</sup> Sampling error is discussed in more detail in the [Quality Report](#) for the National Survey.

cent of survey samples, the 95 per cent confidence interval will contain the 'true' figure for the whole population (that is, the figure we would get if the survey covered the entire population). In general, the smaller the sample size the wider the confidence interval. Confidence intervals are included in the tables of survey results published on [StatsWales](#) and on the [NSW webpages](#).

As with any survey, the National Survey is also subject to a range of other sources of error: for example, due to non-response; because respondents may not interpret the questions as intended or may not answer accurately; and because errors may be introduced as the survey data is processed. These kinds of error are known as non-sampling error, and are discussed further in the [quality report](#) for the survey.

### **Local authority / health board estimates**

Sample sizes for questions on health-related lifestyle for local authorities and health boards are relatively small, therefore two years of data (2016-17 and 2017-18) have been combined to increase the sample size and improve precision. Even so, it should be noted that the sample size for some areas is still relatively small. Sample sizes are shown in the online tables, along with 95 per cent confidence intervals to give an indication of the precision of results. The sample size for these questions was very unequal between the two survey years being combined (as only half of the sample were asked these questions in 2017-18 compared with the full sample in 2016-17), however the weighting process adjusts for this. Essentially, the survey weights for each year are scaled to match the adult population in private households in Wales. This means that when the data are combined, each survey year contributes roughly the same number of weighted survey responses.

### **National Statistics status**

The [United Kingdom Statistics Authority](#) has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the [Code of Practice for Statistics](#).

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Statistics. They are awarded National Statistics status following an assessment by the UK Statistics Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Welsh Government's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

## Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators (“national indicators”) that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016 and this bulletin includes one of the national indicators namely the “Percentage of adults who have fewer than two healthy lifestyle behaviours (not smoking, healthy weight, eat five fruit or vegetables a day, not drinking above guidelines and meet physical activity guidelines)”.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

This release includes 5 contextual indicators, namely the five individual behaviours contained within the composite measure “Percentage of adults who have fewer than two healthy lifestyle behaviours (not smoking, healthy weight, eat five fruit or vegetables a day, not drinking above guidelines and meet physical activity guidelines)”, which were referenced in the technical document in the previous link.

As a national indicator under the Act they must be referred to in the analyses of local well-being produced by public services boards when they are analysing the state of economic, social, environmental and cultural well-being in their areas.

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

### Release policy

Information about the process for releasing new results is available from the [Welsh Government’s statistics web pages](#), including information on our [revisions policy](#).

### Availability of datasets

The data behind the charts and tables in this release are published in spreadsheets on [StatsWales](#) and the [NSW webpages](#). An anonymised version of the annual datasets (from which some information is removed to ensure confidentiality is preserved), together with supporting documentation, will be deposited with the UK Data Archive. For more information, please contact us (see below).

## Further details

The document is available at:

<https://gov.wales/statistics-and-research/national-survey/?tab=current&lang=en>

## Next update

June 2019

## We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to

[stats.healthinfo@gov.wales](mailto:stats.healthinfo@gov.wales)

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