





# **OBESITY PREVALENCE**

#### Forth Valley Health Board area

This factsheet reports data on obesity prevalence (adults, children and maternal), levels of fruit and vegetable consumption, food insecurity, type 2 diabetes prevalence, and rates of physical activity for the NHS Forth Valley Health Board area.

### HEADLINE STATISTICS FOR FORTH VALLEY

- >> Population 305,710 people (2021)<sup>1</sup>.
- 65% of the adult population have overweight and obesity (national figure 67%)
  31% have obesity (national figure − 29%)².
- >> 10.2% of children in the area were at risk of developing obesity in academic year 2022/23, compared to a national average of 10.5%<sup>3</sup>.
- >> Average adult daily portions of fruit and vegetables 3.12 portions (national average 3.4 portions).
- >> Proportion of the adult population who meets recommended daily intake of 5 portions of fruit and vegetables 21%² (national figure 22%).
- >> Proportion of the population who meets recommended physical activity levels 64% (national figure 65%)<sup>2</sup>.





#### Note on the data sources used in this factsheet

The adult data presented for the health board area in relation to regional obesity trends and fruit and vegetable consumption is an average of the data collected between 2016 and 2019 in the Scottish Health Survey (SHeS). More up to date data is not yet available by health board area. No data is available by health board area for 2022. As a result the data in the factsheet has not been updated and remains the same as the previous version. There was also no data on children reported by health board area.

The adult data presented for the health board area in relation to food insecurity and physical activity is an average of the data collected between 2017 and 2021 in the SHeS.

Data presented for national figures in relation to obesity trends, fruit and vegetable consumption, food insecurity

and physical activity were obtained from the SHeS 2022. All data obtained from the SHeS is the most recent data available at the time.

**Primary 1 BMI data:** is used as there is no data for children reported by health board level in the 2022 SHeS. The latest available data from 2022/23 academic year is used. In 2022/23, coverage was 89.3%, down slightly from 94%.

**Scottish Diabetes Survey:** Data reporting in the survey changes each year. As a result, the data included in this factsheet was not reported in the 2022 version of the survey. Therefore, the data from the 2021 survey is included.

Obesity describes the accumulation of excess body fat. Body Mass Index (BMI) is used to define overweight and obesity at population level. BMI is a measure of whether a person is a healthy weight for their height. For most adults, overweight is defined as having a BMI of 25 – 29.9 kg/m² and obesity is defined as having a BMI of 30kg/m² and higher. Severe obesity is defined as having a BMI of 40kg/m² or higher⁴.

BMI is an effective population measure as it is relatively accurate, simple and cheap; however, there will always be exceptions to the rule for individuals, e.g. people who are very muscular or pregnant women may have a high BMI but not extra fat mass. In such individual circumstances, other measures can be used to provide a more accurate assessment of healthy weight.

#### **OBESITY TRENDS - ADULTS<sup>2</sup>**

- >> 65% of the adult population have overweight (including obesity); 31% have obesity and 3% have severe obesity. The national figures for the same period are 67%, 29% and 4% respectively.
- Obesity trends in males 65% of males have overweight (including obesity); 29% are living with obesity and 1% have severe obesity.
- >> Obesity trends in females 65% of females have overweight (including obesity); 34% are living with obesity and 5% have severe obesity.
- >> 33% of the adult population is a healthy weight (i.e. is not living with overweight and obesity) (nationally 32% of the population is a healthy weight). For males, the figure is 32% and for females, 34% (nationally, the figures are 28% and 36% respectively).
- >> Underweight is not recorded as a separate data category in the statistics by health board area.



## OBESITY TRENDS - CHILDREN3



The data presented here for children is the Primary 1 Body Mass Index (BMI) measurement data.

- >> In academic year 2022/23, 11.8% of children in the health board were at risk of becoming overweight, and a further 10.2% at risk of obesity.
- >> Table 1 (below) provides a comparison of the last 3 academic years where data is available, with the national figures included in brackets. The table shows that risk of overweight and obesity had continued to rise over the 3 years.

**Table 1**Primary 1 Body Mass Index (BMI) statistics for academic years 2019/20, 2021/22 and 2022/23

	2019/20⁵	2021/226	2022/23³
Healthy	77% (76.6%)	77.7% (74.7%)	77.0% (76.8%)
Risk of overweight	12.2% (12.3%)	11.5% (12.4%)	11.8% (11.4%)
Risk of obesity	9.0% (10.4%)	10.0% (11.7%)	10.2% (10.5%)
Risk of overweight & obesity	21.2% (22.7%)	21.5% (24.1%)	22.0% (21.9%)

#### MATERNAL OBESITY

- >> In the year ending 31st March 2023, 27% of expectant mothers were overweight and 30.2% had obesity. Nationally, 28.6% of expectant mothers were overweight and 27.9% had obesity.
- >> This means over 57% (57.2%) of expectant mothers in the health board area are an unhealthy weight, which is above the national figure (of 56.5%).
- 39.9% were a healthy weight, and the remaining 2.9% were recorded as being underweight.
- Nationally, 56.5% of expectant mothers are overweight or have obesity, 40.8% were a healthy weight and 2.7% were underweight.





#### FRUIT AND VEGETABLE CONSUMPTION<sup>2</sup>

- >> Just over 1 in 5 adults (21%) in the health board area meet the recommended guidelines for 5 or more portions of fruit and vegetables per day. 68% reported eating fewer than 5 portions per day and 11% reported eating no fruit and vegetables.
- >> There are slight variations by gender:
  - >> For females, 22% meet the guidelines of 5 or more portions of fruit and vegetables per day. 68% consume fewer than 5 portions per day and 10% do not consume any fruit and vegetables.
  - >> For males, 19% meet the guidelines of 5 or more portions of fruit and vegetables per day. 68% consume fewer than 5 portions per day and 13% do not consume any fruit and vegetables.
- >> The mean number of daily portions of fruit and vegetables consumed in the health board area is 3.1 portions. This is below the national average of 3.4 portions. For males, the figure is 3 portions and for females 3.3 portions.
- >> This information is not available for children.

### FOOD INSECURITY2

- Across the region, 5% of adults report being food insecure i.e. worried that they would run out of food. This is below the national average of 9% in 2022.
- >> For males, the figure is 4% and for females 7%. Nationally, the figure for both males and females is 9%.







#### TYPE 2 DIABETES PREVALENCES

- >> Data from 2021 concluded that 17,023 individuals in the health board area had type 2 diabetes. This accounts for 87.9% of all cases recorded in this area.
- >> Out of the 14 regional health boards, Forth Valley had the 6th highest recorded prevalence for type 2 diabetes.
- This data excludes children, as data by diabetes type is not recorded for children (aged 16 and under).

#### PHYSICAL ACTIVITY2

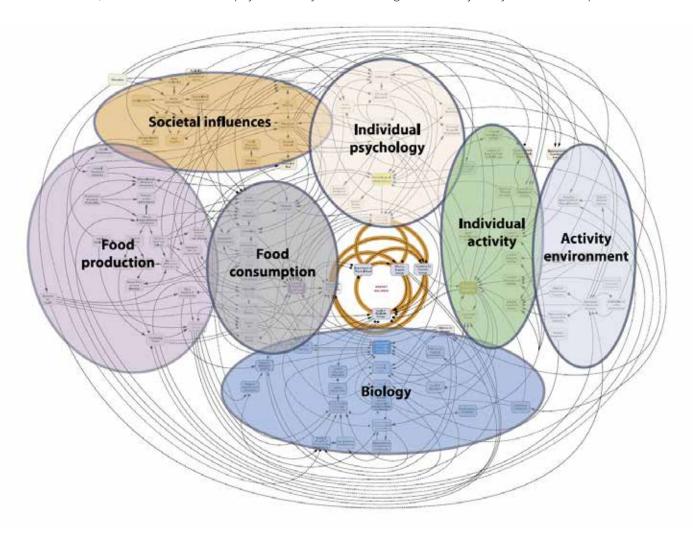
- >> Just under two thirds (64%) of people in the area meet the recommended physical activity guidelines, which is below the national figure of 65%.
  - >> 5% report low levels of activity, compared to a national figure of 4%.
  - >> 11% report some level of activity, compared to 10% nationally.
  - Just over a fifth of people (21%) report very low levels of physical activity, compared to 20% nationally.
- More males than females achieve the recommended levels of physical activity – 70% of males, compared to 58% of females.
  - >> 4% of males and 6% females report low levels of physical activity. Nationally, the figure for males is 3% and 4% for females.
  - 3 19% of males report very low levels of physical activity, compared to 23% of females. Nationally, the figure for males is 18% and for females 22%.
  - >> 7% of males report some level of physical activity, compared to 14% of females. Nationally, the figure for males is 8% and for females 12%.
- >>> There is no data available by health board area for children.



### CAUSES OF OBESITY

Obesity occurs when energy intake from food and drink is greater than the body's energy requirements over a prolonged period. An obesogenic environment is one where environmental factors play a role in diet and nutrition (as well as the amount of physical activity

undertaken). These factors have a strong influence on the availability and consumption of food. In obesogenic environments inactivity and overconsumption of energy dense foods is easy, affordable and widely accepted, making an unhealthy lifestyle the default option.



The Foresight report<sup>9</sup> for the UK government identified 7 clusters of factors / behaviours that are contributing to obesity (termed a 'system's map'): food consumption, food production, individual psychology, social psychology, physiology, individual activity and physical activity environment.

These clusters are interconnected, e.g. some individuals may exhibit compensatory behaviour such as allowing themselves an energy-dense snack as a 'reward' after exercising. This connectivity is important when designing/delivering interventions; it may help to explain unexpected impacts or losses of impact due to mitigating effects of different factors/behaviours.

Obesity is complex. Rather than being the sole responsibility of individuals, overweight and obesity

are the result of a complex web of interrelated policy, environmental, social, economic, cultural and biological factors. Despite this, however, many interventions continue to place emphasis on approaches that focus on individual behaviour change. Local authorities and health boards hold a unique power in leading their stakeholders to focus interventions away from the individual towards recognition of the multiple interrelated factors influencing weight outcomes.







## REFERENCES

- 1. https://statistics.gov.scot/home with the data filtered by health board area
- 2. https://scotland.shinyapps.io/sg-scottish-health-survey/ with the data filtered by health board area and data category
- 3. Public Health Scotland (2023) Primary 1 Body Mass Index (BMI) statistics. School year 2022/23 https://publichealthscotland.scot/media/24196/2023-12-12-p1-bmi-statistics-publicationreport.pdf
- 4. World Health Organization (2018) Obesity and Overweight Factsheet (updated June 2021) https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
- 5. Public Health Scotland (2020) Primary 1 Body Mass Index (BMI) statistics. School year 2019/20 https://publichealthscotland.scot/publications/primary-1-body-mass-index-bmi-statisticsscotland/primary-1-body-mass-index-bmi-statistics-scotland-school-year-2019-to-2020/
- 6. Public Health Scotland (2022) Primary 1 Body Mass Index (BMI) statistics. School year 2021/22 https://publichealthscotland.scot/publications/primary-1-body-mass-index-bmi-statisticsscotland/primary-1-body-mass-index-bmi-statistics-scotland-school-year-2021-to-2022/
- 7. Public Health Scotland (2023) Births in Scottish Hospitals. Year ending 31 March 2023 https://publichealthscotland.scot/publications/births-in-scotland/births-in-scotland-year-ending-31-march-2023/
- 8. Scottish Diabetes Survey 2021, Table 40 https://www.diabetesinscotland.org.uk/wp-content/uploads/2023/02/Diabetes-Scottish-Diabetes-Survey-2021-final-version.pdf
- 9. Butland B, Jebb S, Kopelman P, et al (2007) Foresight. Tackling obesities: Future choices project report. 2nd edition

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