Scottish ObesityAlliance
*Advocating for healthy weight*



# OBESITY AND INEQUALITIES IN SCOTLAND

## What is obesity?

Obesity is the excess accumulation of body fat. Carrying this excess fat increases a person's risk of developing a range of noncommunicable diseases (NCDs), including cardiovascular disease, diabetes, some cancers, osteoarthritis, and chronic respiratory disease [1]. These NCDs can lead to a poorer quality of life and an increased risk of early death. Obesity can also lead to poorer psychosocial outcomes, through weight stigma and discrimination [2].


*Image credit: World Health Organisation, Uganda*

## Defining obesity

Generally, obesity is defined based on a person's body mass index (BMI). This is a measure of weight in relation to height. Overweight is another term used in this context; it means that a person is carrying excess weight but not enough to be said to be experiencing obesity. These definitions are still widely used, including in this factsheet.

A note on obesity definitions

BMI is not a direct indicator of health. It has limitations, particularly when applied to some minority ethnic groups whose risk of health complications occur at a lower BMI threshold.

Experts recently proposed that we abandon the use of BMI and instead categorise the accumulation of excess fat as either *pre-clinical obesity* or *clinical obesity* [3]. In this definition, people who have only excess fat accumulation would be said to live with pre-clinical obesity, whereas those who have also been diagnosed with a health condition as a direct result of this excess fat would be said to be living with clinical obesity.

This new definition may help us to better understand some of the health inequalities associated with obesity.

# What are health inequalities?

**Health inequalities are systematic, unfair and avoidable differences in health outcomes between different groups of people [4].**

We see persistent differences in health outcomes when we group people by socioeconomic status, characterised in Scotland by the Scottish Index of Multiple Deprivation (SIMD). The most deprived people tend to experience the poorest health outcomes [5]. Differences in health outcomes are similarly observed by other factors such as age, sex, ethnicity, disability, and social exclusion/vulnerability.

Drivers of different rates of obesity between groups may include different levels of financial or physical access to healthy food and differences in access to healthcare services.

# What do inequalities mean for obesity?

Groups at higher risk of obesity are inevitably also at higher risk of other adverse health and developmental outcomes.

MONEY AND WHERE YOU LIVE MATTER

- PEOPLE IN POORER AREAS ARE MORE LIKELY TO EXPERIENCE OBESITY THAN THOSE IN WEALTHIER AREAS. [6]
- THIS GAP IS BIGGER FOR WOMEN THAN FOR MEN. [6]
- FOR CHILDREN, THE DIFFERENCE IS EVEN MORE NOTICEABLE. THE GAP BETWEEN RICH AND POOR AREAS HAS GROWN OVER TIME. [7]
- IN THE POOREST NEIGHBOURHOODS, ABOUT 1 IN 7 CHILDREN ARE AT RISK OF OBESITY. IN THE RICHEST AREAS, IT'S ONLY ABOUT 1 IN 17. [7]

# Inequalities in more detail

## *Socioeconomic status (deprivation)*

**Adults.** The 2022 Scottish Health Survey[a] showed that the **proportion of adults living with obesity increases with deprivation** [6] - see figure 1 . 19% of adults in the least deprived areas are living with obesity, compared to 36% in the most deprived (almost double).

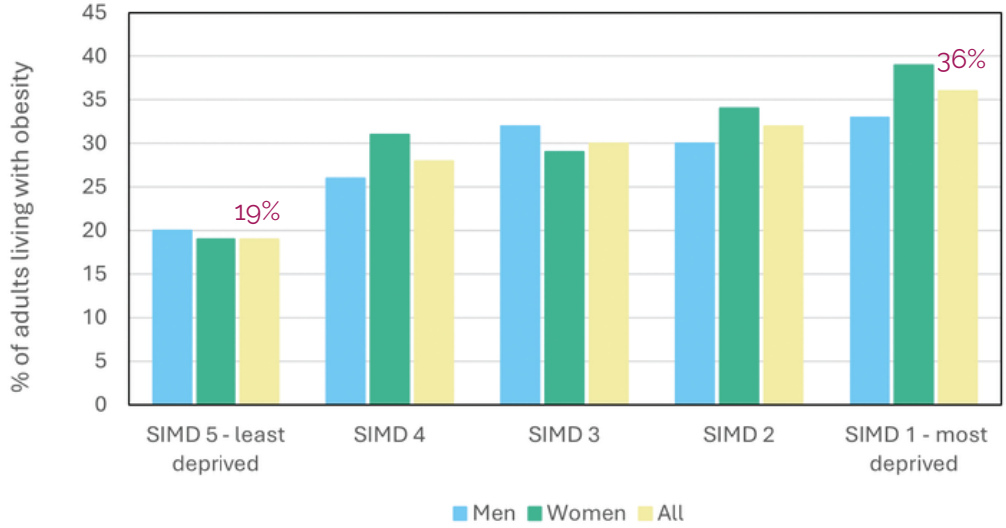


*Figure 1: Adults living with obesity (BMI=30kg/m2 or above), age-standardised, by area deprivation and sex, 2022. Data extracted from Scottish Health Survey 2022 [6].*

**Children.** A similar pattern is seen for primary 1 children [7]. **Children in the most deprived areas are more than twice as likely (14%) to live with obesity than those in the least deprived areas (6%)** – see figure 2. This gap has significantly widened over time. Childhood obesity is a key indicator, since children who experience obesity are more likely to live with it into adulthood and go on to develop NCDs.

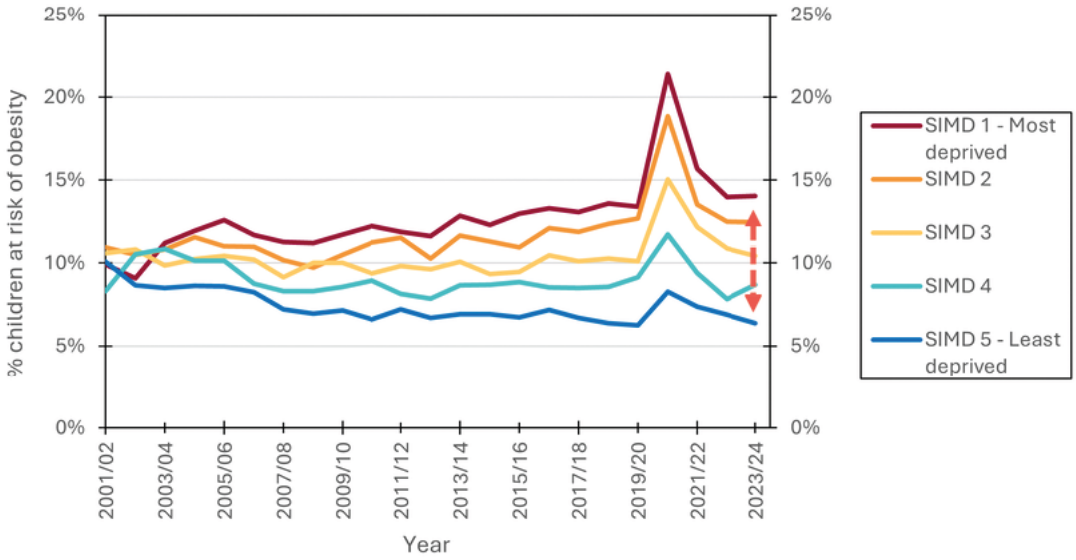


*Figure 2: Primary 1 children in Scotland, risk of obesity, by deprivation over time. Data extracted from Primary 1 BMI statistics Scotland 2023-24 [7].*

[a]Data shown is from the 2022 Scottish Health Survey (published 2023), since the most recent data publication (2023 survey, published 2024) does not include a breakdown by SIMD or by limiting long-term conditions.

## *Ethnicity*

**We need more, and better, data to fully understand obesity related inequalities in minority ethnic groups in Scotland. This lack of data in itself may increase inequalities, since most action to improve health is directed by data.**

**Adults.** The most recent data on obesity in minority ethnic groups in Scotland comes from the 2012 Scottish Health Topic Report [8]. Clearly this requires updating. The report does indicate that adults of African, Caribbean or Black ethnicity were more likely to live with obesity than other ethnic groups (not statistically significant), and this pattern is reflected in more recent English data [9]. BMI thresholds were not adjusted by ethnicity in this report, and therefore the prevalence of obesity in some minority ethnic groups is likely even higher than estimated.

**Children.** In primary 1 children, those of Black, Caribbean or African ethnicity are most likely to be at risk of obesity (13.6% in 2023, compared to 10.9% of white Scottish children) [7]. It is not clear if this difference is statistically significant. Again, BMI thresholds for estimating obesity were not adjusted by ethnicity, and therefore the prevalence of obesity may have been underestimated in some minority ethnic groups.

## *Disability*

The 2022 Scottish Health Survey [a] showed that 36% of men and 38% of women living with a limiting long-term condition (disability) also lived with obesity [6]. This is higher than the average rate in the wider population (29%).

## *Sex*

In 2023, 30% of men and 34% of women were living with obesity. The mean BMI for adults was 28.0 kg $m^{-2}$, with no significant difference by sex [10].

## *Age*

In 2023, adults age 25 and over were significantly more likely to live with overweight or obesity than those aged 16-24 [10]. Rates of overweight and obesity gradually increase until the age of 75, after which there is a small decrease.

[a]Data shown is from the 2022 Scottish Health Survey (published 2023), since the most recent data publication (2023 survey, published 2024) does not include a breakdown by SIMD or by *limiting long-term conditions*.

# Intersection of inequalities and obesity

Obesity is not just about personal choices. As figure 5 shows, many factors in lives and surroundings can make it harder to maintain a healthy weight. These factors often overlap, creating bigger challenges for some groups.

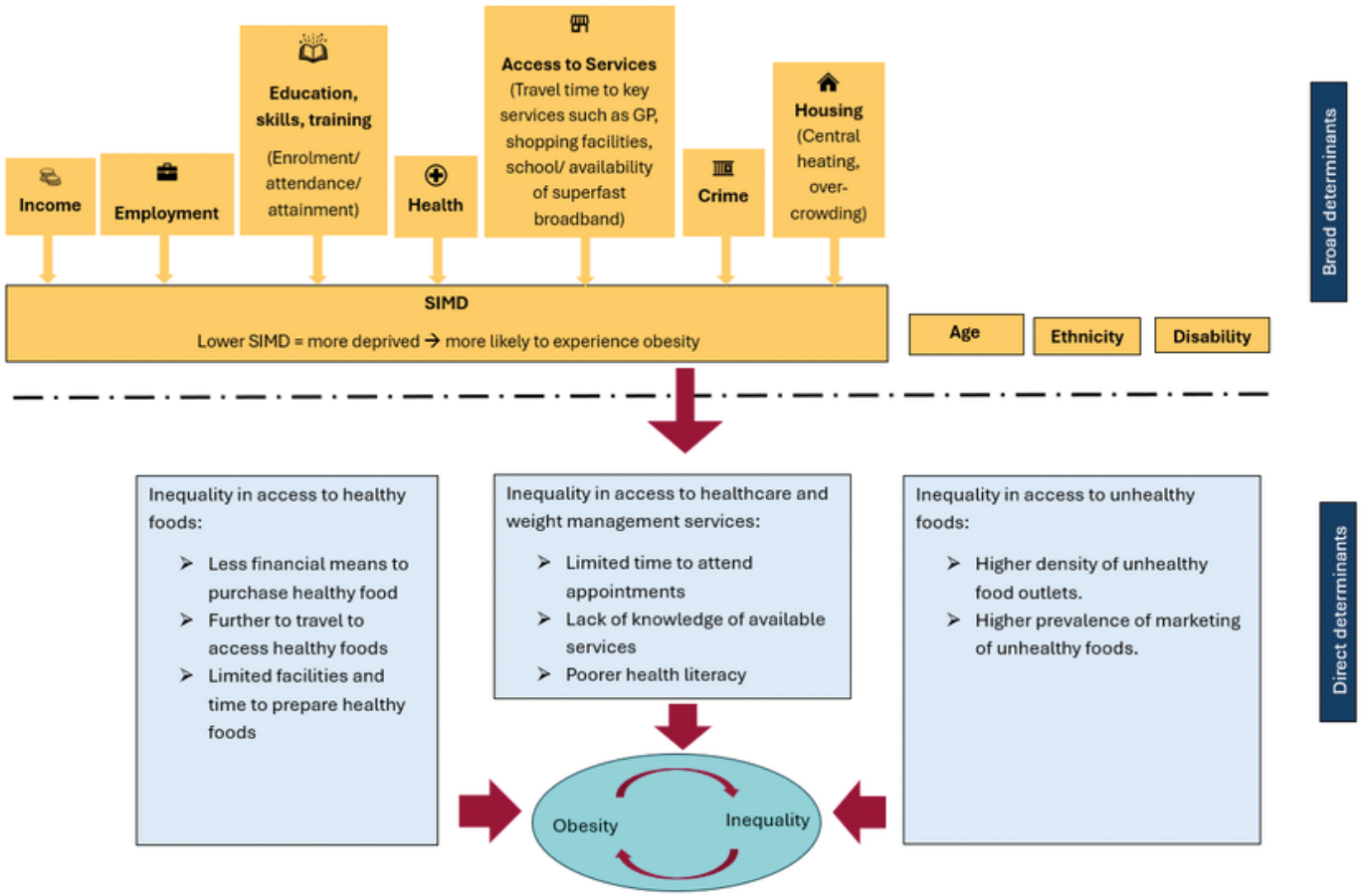


*Figure 5: Illustration of obesity inequality determinants. Based on diagram by Toorang et al. [11].*

INEQUALITIES AND OBESITY: REAL LIFE REFLECTION

Imagine a woman from an ethnic minority background living in a poor urban area. She might face several challenges:

- Hard to find affordable healthy food nearby
- Few safe places to exercise or play sports
- More adverts for unhealthy foods in her neighbourhood
- Language barriers making it hard to get health advice
- Stress from money worries or unfair treatment, which can affect eating habits
- If pregnant, higher risks of health issues that can affect her and her baby long-term

## Addressing inequalities in obesity

Health inequalities are avoidable. We can work towards eliminating them by:

- Reducing socioeconomic inequalities and reducing poverty.
- Taking a whole systems approach to obesity.
- Transforming the food environment, with focus on reducing diet related inequalities:
  - Taxing unhealthy food and channeling resources to make healthy food available to all, starting in the most deprived areas.
  - Facilitating marketing and promotions of healthy food while restricting those of unhealthy food.
  - Regulating ultra processed foods.
  - Supporting local food systems that prioritise access to healthy foods for all.
  - Reducing the density of unhealthy food outlets in deprived neighbourhoods.
  - Empowering consumers at point of purchase through nutrition and calorie labelling.
  - Ensuring availability and nutritional quality of free school meals.
- Ensuring that weight related advice is culturally appropriate and considers differing cultural views on what constitutes a healthy weight.
- Ensuring equitable access to weight management services.

## Broader goals and commitments

Scotland is already committed to a series of relevant policies and targets. Achieving these will automatically help to reduce inequalities in obesity rates and will likely reduce overall obesity rates too. These include:

- The Scottish Government target that by 2030, less than 10% of children are in relative poverty and less than 5% of children are in absolute poverty [12].
- The Fairer Scotland Duty, a legal requirement for public bodies to actively consider how they can reduce inequalities of outcome caused by socio-economic disadvantage, when making strategic decisions [13].
- A commitment to facilitating a Wellbeing Economy [14].
- The United Nations Convention on the Rights of the Child (UNCRC) (Incorporation) (Scotland) Act 2024.
- The Good Food Nation (Scotland) Act 2022.
- A commitment to meet the United Nations Sustainable Development Goals (SDGs), in particular goals 1 and 3 [15].

Similarly, directly addressing obesity will likely contribute towards achieving some of these broader commitments.

# References


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