Obesity Action Scotland
Healthy weight for all

FACTSHEET 2020/21 DATA

February 2023

OBESITY IN SCOTLAND

Prevalence, Causes and Impact

This factsheet reports on data from 2020/21 and also looks at the impact of the pandemic on the prevalence of obesity in Scotland. We have produced a further 2 factsheets, reporting on data from 2019/20 and 2021/22. We are currently presenting these as a suite of complementary documents in light of the impact of the pandemic on data collection methods.

Note on the data included in this factsheet

The Scottish Health Survey 2020 was carried out in a different way to the usual format due to the COVID-19 pandemic. The survey was undertaken over the telephone, and respondents were required to provide self-reported height and weight measurements. There was also no data on children collected. Evidence suggests that self-reported measurements can overestimate height and underestimate weight and therefore provide inaccurate overall results and underreport prevalence of obesity in Scotland during the pandemic. It must also be noted, that due to a different data collection method in 2020, this data cannot be compared to previous years.

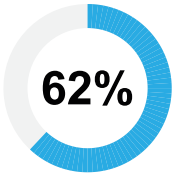
Primary 1 BMI data: In 2020/21 coverage of Primary 1 school children in the survey dropped to 37% due to the COVID-19 pandemic, as not all schools were able to record height and weight measurements. Lower coverage of P1 school children in 2020/21 means that the results should be treated with a degree of caution, due to the low coverage. However, additional analysis in the report showed that this year's data was sufficiently comparable to that of previous years (in terms of characteristics of the children measured) to provide meaningful trend data (i.e. to be used in comparisons).

OBESITY TRENDS

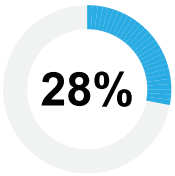
Obesity is a significant public health concern. In 2020, adult obesity prevalence was 28% and 62% of adults had overweight and obesity[1]. No data for children was collected in the 2020 Scottish Health Survey. We therefore use the Primary 1 BMI data to report on children's overweight and obesity in this factsheet.

The Primary 1 BMI data shows a worrying increase in the proportion of children at risk of overweight and obesity. In the 2020/21 academic year, 29.5% of Primary 1 children were at risk of overweight and obesity. This is a 6.8% increase on the previous year. Worryingly, the most substantial increase was in the proportion of children at risk from obesity, rising by 5.5% to 15.5%[3].

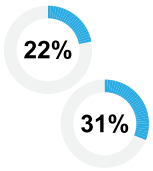
OBESITY PREVALENCE IN SCOTLAND



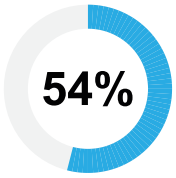
Just under 2 in 3 adults (62%) have overweight including obesity[1].



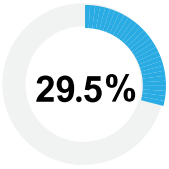
More than 1 in 4 adults (28%) have obesity[1].



Obesity increases with age from 22% in the 16-44 age group to 31% in those aged 65-74[1*]



More than half (54%) of pregnant women had overweight and obesity in 2020/21[2]. This is highest recorded figure.



29.5% of children in Primary 1 were at risk of overweight and obesity [3]. This is 6.8% increase from the previous year.

* The lower age ranges in the 2020 Scottish Health Survey have changed. Adult ages 16-44 are now reported as one range of data, rather than as multiple categories such as 16-24, 25-34 as in previous years. Direct comparisons cannot therefore be drawn with previous years data.

DEFINITION OF OBESITY

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/m^2 and obesity is defined as having a BMI of 30kg/m^2 and higher[4].

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.

GENDER

In 2020, males were more likely to have overweight and obesity than females. This is the case for both men and boys in Primary 1. Women are slightly more likely than men to have obesity.

- 64% of men have overweight and obesity. 28% have obesity[1].
- 60% of women have overweight and obesity. 29% have obesity[1].
- For boys in Primary 1, 30.2% were at risk of overweight and obesity in 2020/21. 16.2% were at risk of obesity[3]. This is rise in the risk of obesity from 10.4% the previous year[3].
- For girls in Primary 1, 28.7% were at risk of overweight and obesity in 2020/21. 14.7% were at risk of obesity. This is a rise in the risk of obesity from 10.2% the previous year[3].

DEPRIVATION

- The 2020 Scottish Health Survey does not report by deprivation quintile for adults.
- Children living in more deprived areas are more to likely to be at risk of overweight and obesity. In 2020/21 academic year, **35.7%** of Primary 1 children were at risk of overweight and obesity in the most deprived areas, compared to 20.8% in the least deprived areas. When looking at obesity alone, children from the most deprived backgrounds are almost three times as likely to be at risk of obesity than their peers from least deprived backgrounds (21% vs 8%)[3].
- The 2020/21 academic year is the first year there has been an increase in the risk of overweight and obesity among the least deprived (as well as the most deprived). The risk of overweight and obesity in children in Primary 1 from the least deprived quintile had previously been decreasing.

IMPACT OF THE COVID-19 PANDEMIC ON OBESITY PREVALENCE

The COVID-19 pandemic has had an impact on the prevalence of overweight and obesity in Scotland, with large numbers of adults reporting their weight has increased during the first initial lockdown.

- Almost two-fifths (39%) of adults in Scotland reported their weight had increased since the first lockdown. Only 18% reported that their weight had decreased[1].
- Women were more likely than men to report that their weight had increased since the start of lockdown: 43% vs 34%[1].
- Younger age groups 16-44 were also more likely to report that their weight had increased since the start of lockdown than older age groups. 42% of adults aged 16-44 reported their weight had increased compared to 39% of adults aged 65-74, with a higher proportion of younger women reporting increased weight than men (45% women aged 16-44 compared to 34% of men)[1].

Results from polling activity we commissioned to assess the impact of the pandemic on overweight and obesity outcomes and other health determinants supports these findings. This polling activity in March 2021 followed on from initial polling activity in May 2020, to understand the ongoing impact of the pandemic.

- 47% reported an increase in their body weight since the start of the pandemic. Only 19% reported their weight had decreased[5].
- Again women were more likely than men to report that their body weight had increased since the start of the pandemic: 49% of women, compared to 44% of men[5].
- 52% of polling respondents reported eating more out of boredom since the start of the pandemic. This was particularly the case for young people aged 16-24 and those with worse mental wellbeing with 65% and 67% respectively reporting eating more[5].

Households with children reported greater changes to their weight and eating habits than households with no children.

- Just over half of adults (51%) with children in their household reported their weight had increased, compared to 45% with no children in the household[5].
- There was a greater increase in the amount of takeaways eaten between 2020 and 2021 in households with children compared to those without. In 2021, 40% of households with children reported eating more takeaways compared to only 17% in 2020; for households with no children, the increase was much smaller, with 28% reporting eating more takeaways in 2021 compared to 11% in 2020.
- The biggest difference in eating habits can be seen with ready meals. In 2020, 7% of adults with children present reported eating more ready meals and this proportion increased to 23% in March 2021. This is compared to only a 2% increase in households with no children (from 9% to 11%)[5].

Parents have also reported changes in their children's weight during the pandemic.

- Results from our parents omnibus survey show that, whilst the vast majority of parents (76%) believed their child's weight had remained unchanged since the start of the pandemic, 14% of parents believed their child's weight had increased since March 2020. Twice as many parents said their child had gained weight compared to those who believed their child's weight was now lower (7%).

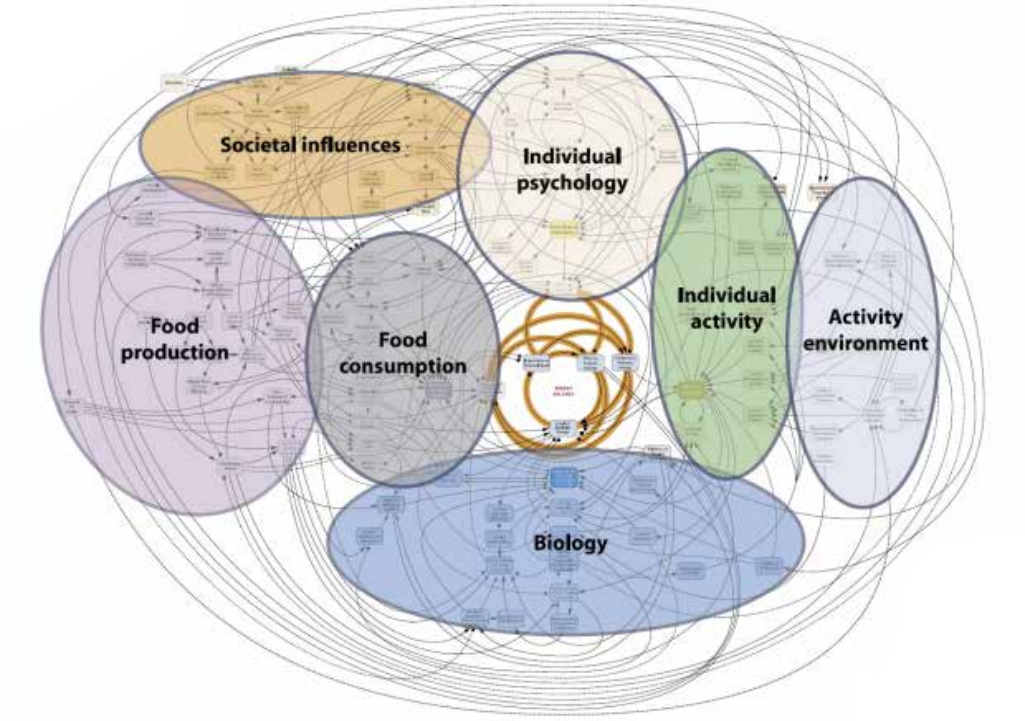
Parents are largely supportive of their children being weighed in school. Child weight measurement is taken in Primary 1 as part of the Child Measurement Programme.

- In our polling, 55% of parents were supportive of their child being weighed in school by heath professionals; 28% were opposed.
- Support varied by different groups. Men were most supportive of the practice, however the overall majority of both men (66%) and women (51%) were in favour of it. Parents in households with 3+ children showed significantly more support compared to households with only one child (67% vs 52%).
- There were also differences in parental support across the age range of children. More parents of 5-8-year olds supported the practice (62%) compared to parents of 15-17-year olds (50%), and there was generally more 'strong support' of the practice from parents with children in the younger age groups (children aged 11 and under).
- Reasons given by parents for not supporting their child being weighed included concerns over mental health and wellbeing, a belief that it is not the school or government's place to weigh children, and that it was deemed unnecessary[6].

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[7]. In obesogenic environments inactivity and overconsumption of energy dense foods is easy, affordable and widely accepted, making an unhealthy lifestyle the default option.

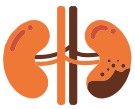
The Foresight report for the UK Government identified 7 clusters of factors / behaviours that are contributing to obesity (termed a 'system's map').



These clusters are interconnected, and 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.

IMPACT OF OBESITY

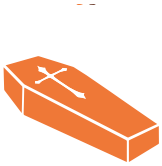
Obesity increases the risk of



Kidney disease

Type 2 diabetes

Infertility in women, impotency in men



Premature death

13 common cancers

Complications during pregnancy and birth

Unemployment

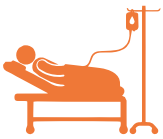
Cardiovascular disease

Musculoskeletal problems

Discrimination and stigmatisation

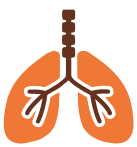
Alzheimer's disease and dementia

Mental health problems



Increased risk of hospitalisation

Gastrointestinal disorders



Respiratory disorders

Severe illness and death from COVID-19

Type 2 diabetes[8], 13 common cancers[9], cardiovascular disease[10], Alzheimer's disease[11] and dementia, gastrointestinal disorders[1], infertility in women, impotency in men[13], complications during pregnancy and birth[14], musculoskeletal problems[14], mental health problems[15,16], respiratory disorders[14], kidney disease[17], premature death[18], unemployment[19], discrimination and stigmatisation[20], increased risk of hospitalisation[19], severe illness and death from Covid-19[21]

ADDITIONAL RISKS FOR CHILDREN WITH OBESITY

There are a number of additional risks for children who have or who are at risk of obesity. These include:

- Emotional and behavioural impacts including stigmatisation and bullying, low self-esteem, and absence from school[20].
- Physical health impacts including breathing difficulties, increased risk of bone fractures, hypertension, early markers of cardiovascular disease, insulin resistance, and physiological effects[20].
- Increased risk of having obesity in adulthood.
- Higher risk of morbidity, disability and pre-mature death in adulthood[1].

COST OF OBESITY IN SCOTLAND

The annual cost to the NHS in Scotland of obesity is estimated to be £600 million[7]. Average NHS costs for people with a body mass index of 40 kg/m² (severe obesity) are estimated to be twice those for people with a BMI of 20 kg/m² (within normal weight range).

A recently published report calculated the annual cost of adult obesity to the UK economy to be £58bn, with obesity-related ill health costing the NHS an estimated £40bn annually[21].

The main costs associated with unhealthy diet and weight can be grouped into three broad categories – direct, indirect and intangible. Direct costs are generally those which relate to costs of health care services including prevention, diagnosis and treatment of conditions. Indirect costs refer to the loss of productivity on society and typically include absenteeism and premature mortality. Finally, intangible costs relate to the psychological burden on individuals and their friends and families from pain, suffering and bereavement experienced as a result of poor health from overweight and obesity[22].

Evidence suggests that indirect costs are the most significant costs of obesity, accounting for almost two-thirds of total economic costs and impacts from overweight and obesity[23]. Such costs are broad and far reaching and highlight the importance of actions and interventions to mitigate and address them. The McKinsey Institute estimates that the cost of obesity to the UK is equivalent to 3% of gross domestic product ($70billion)[24], taking into account - loss of productivity attributable to loss of life or impaired life quality, direct health care costs, and investment to mitigate the impact of obesity.

Evidence shows that almost all obesity prevention interventions are highly cost-effective to society i.e. that savings on health care costs and improved productivity, through reduced absenteeism for example, could outweigh the costs of direct investment required to deliver the interventions, and could save the NHS $1.2bn per year[21]. A recently published report highlights significant net benefit to the UK economy of four obesity prevention policies which had either been recently implemented or are scheduled to be introduced by the UK government. These policies are the soft drinks industry levy (already implemented), in-store location promotion restrictions (implemented in October 2022) on products high in fat, salt and sugar (HFSS), restrictions on price promotions of HFSS products, and a 9pm watershed for advertising HFSS products on TV and a ban on paid-for online advertising. The report outlines that over a 25-year period, the combined net benefit of these policies is estimated to be over £76 billion[25], demonstrating the significant cost that obesity has to the economy and the huge economic benefits that can be achieved when such policies are implemented. They help to rebalance the food system and ensure that the healthy option is the cheapest and most accessible option for everyone.

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