

Publication Summary



Primary 1 Body Mass Index (BMI) Statistics

School Year 2010/11

Publication date – 24 April 2012



About this Release

Primary 1 Body Mass Index (BMI) Statistics are published annually. This release updates annual statistics on high and low body mass index (BMI) for Primary 1 school children, and includes data to school year 2010/11.

Key Points

- In 2010/11 a total of 41,019 valid height and weight measurements were recorded for children in Primary 1 in Scotland. This is approximately 74% of children in Primary 1.
- Based on centile cut-offs on the 1990 UK growth reference charts used for population monitoring purposes, in 2010/11, 21.4% of Primary 1 children were classified as overweight, including 9.6% obese and 5.5% severely obese. These are very similar to the levels of high BMI in 2009/10 (21.5% overweight, including 9.5% obese and 5.4% severely obese). Over the last decade, the prevalence of overweight and obesity has remained at a similar level of around one in five children in Primary 1.
- The percentage of Primary 1 school children classified as underweight ($\leq 5^{\text{th}}$ centile) was 3.7% in 2010/11, including 1.8% very underweight ($\leq 2^{\text{nd}}$ centile). These are similar to levels of low BMI in 2009/10 (3.4% underweight, including 1.6% very underweight). Levels of underweight have remained relatively stable over the period 2000/01 to 2010/11 at around 3% to 4%.

Background

There is continued concern over the levels of obesity among children in Scotland. Obesity during childhood is a health concern in itself, but can also lead to physical and mental health problems in later life, such as heart disease, diabetes, osteoarthritis, back pain, increased risk of cancer, low self-esteem and depression. Obesity develops as a result of an imbalance between energy consumption and energy expenditure.

Body Mass Index (BMI) is one of the most widely used methods for assessing body composition or estimating levels of body fat. BMI is calculated by dividing an individual's

weight (in kilograms) by their height (in metres) squared and gives an indication of whether weight is in proportion to height. Interpretation of BMI values in children depends on comparison with age- and sex-specific growth reference charts. These provide thresholds or cut-off points in the BMI distribution (BMI centiles), which can be used to estimate levels of obesity, overweight and underweight in children. The BMI centile cut-offs used are those recommended for the purposes of population monitoring and epidemiological research. *The statistics do not represent the percentage of children clinically classified as overweight, obese or severely obese.* Use of the cut-offs recommended for clinical practice would result in lower percentages for overweight, obese and severely obese and BMI centile would be only one of a variety of factors taken into consideration before any clinical diagnosis is made.

The statistics are derived from height and weight measurements collected at the routine Primary 1 review. Information by school year is presented by NHS Board, Council Area, Community Health Partnership, gender and Scottish Index of Multiple Deprivation (SIMD) quintile. A change to the criteria for identifying likely errors in the recorded height and/or weight measurements (and hence derived BMI) and an improved method of deriving the Council Area, Community Health Partnership (CHP) and Scottish Index of Multiple Deprivation (SIMD) has been implemented. This has been applied to data for all years presented resulting in revisions to previously published figures for school years 2000/01 to 2009/10. The impact is in each year the reported percentages of children classified as overweight (including obese and severely obese), obese (including severely obese), and severely obese increase by an average of 1.3 percentage points across all participating boards areas. The reported percentages of children classified with a low BMI (underweight) and very low BMI (very underweight) increase by an average of 0.3 percentage points each year across all participating boards. The revision does not affect the overall interpretation or conclusions to be drawn from previously published data. Overall trends remain the same.

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Further Information

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