Prevalence of obesity in Irish adolescents

J. L. O’Neill, E. Boylan, S. J. Burke, S. N. McCarthy and M. J. Gibney
School of Agriculture, Food Science and Veterinary Medicine, University College Dublin, Dublin, Republic of Ireland

Obesity is a serious and complex public health issue that can have a significant detrimental effect on health\(^1\). In adults the BMI cut-offs of \( \geq 25 \text{kg/m}^2 \) and \( 30 \text{kg/m}^2 \) are widely accepted definitions of overweight and obesity respectively. However, in adolescents there is no standard method; thus highlighting the difficulty posed when making comparisons. BMI has been recommended for use in children and adolescents; however, as BMI varies with age and gender during adolescence, it is essential that age- and gender-specific BMI cut-offs be used in defining overweight and obesity\(^1\)–\(^4\).

Data for the present investigation are from the National Teens’ Food Survey (NTFS), for which weight and height were measured in 223 males and 217 females aged 13–17 years who were randomly selected throughout the Republic of Ireland\(^5\). BMI was determined by weight (kg) divided by height\(^2\) (m\(^2\)). As there are currently no BMI v. age reference curves for an Irish reference population, the UK 1990 BMI-for-age growth charts\(^4\) were used to identify the overweight and obese adolescent\(^6\).

% Fold increase in obesity 1990*–2007†

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Normal</th>
<th>Overweight</th>
<th>Obese</th>
<th>Fold increase in obesity 1990*–2007†</th>
</tr>
</thead>
<tbody>
<tr>
<td>All teens</td>
<td>440</td>
<td>81.6</td>
<td>10.9</td>
<td>7.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Males</td>
<td>223</td>
<td>80.7</td>
<td>10.8</td>
<td>8.5</td>
<td>12.6</td>
</tr>
<tr>
<td>Females</td>
<td>217</td>
<td>82.5</td>
<td>11.1</td>
<td>6.5</td>
<td>2.2</td>
</tr>
</tbody>
</table>

\(^*\)1990 Irish National Nutrition Survey\(^7\).
\(^†\)2007 NTFS\(^5\).

It is evident from the Table that the prevalence of overweight and obesity in Irish adolescents is high. The trend in obesity in Irish adolescents over the last decade was assessed by comparing the raw data from the NTFS with that of adolescents aged 13–17 years from the 1990 Irish National Nutrition Survey\(^7\), using the UK 1990 BMI-for-age growth charts to define obesity in both samples. Between the 1990 and the 2007 surveys there was a 13-fold increase in obesity in males and a 2-fold increase in obesity in females.

The findings show a high prevalence of obesity in Irish adolescents, and the increase in the prevalence of obesity over the last 17 years, especially in males, highlights obesity in adolescents as a growing public health issue in Ireland. In light of the current levels of obesity and the serious economic and health consequences of the disease, identifying the underlying factors associated with the aetiology of obesity is vital for the development of effective treatment and prevention programmes.

This project was funded by the Irish Government under the National Development Plan 2000–2006.


Downloaded from https://www.cambridge.org/core. IP address: 54.70.40.11, on 19 Feb 2019 at 02:05:56, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/S00296655108009518