



## GROWING UP IN IRELAND – OVERWEIGHT AND OBESITY AMONG 9-YEAR-OLDS

### EXECUTIVE SUMMARY

Ireland, like many other countries, has experienced a significant increase in the prevalence of overweight and obesity among children and adolescents in recent decades. Excess weight in childhood can have serious health consequences both in childhood and later life. This report uses data from the first wave of the child cohort of the **Growing Up in Ireland Study (GUI)** to examine the pattern of overweight and obesity among nine-year-old children and the factors associated with it. Detailed information on the child, parents, teachers and principals was gathered in the child's home and school. Physical measures of the child and their parent's height and weight were taken and this information was used to construct a body mass index (BMI) for parents and children. Parents were asked many questions about the behaviours of their child, including level of physical activity, quality of diet and sedentary activities such as watching TV and computer gaming.

#### 1. Levels of Overweight and Obesity

Overall, 75% of nine-year-olds in the **Growing Up in Ireland** study were defined as being of healthy BMI, 19% were overweight and 7% were obese. Girls are more likely to be defined as being overweight (22%) or obese (8%) than boys (17% and 5%); thus a total of 30% of girls and 22% of boys are defined as overweight/obese ( $P < 0.001$ ). There are pronounced social-class inequalities in the prevalence of overweight and obesity among nine-year-olds. Using the Central Statistics Office's measure of social class, the report shows that 19% of boys and 18% of girls from professional households are overweight/obese. This increases to 29% of boys and 38% of girls from semi- and unskilled social-class households.

Levels of dietary quality, physical activity and sedentary behaviours vary significantly across child sex and between social-class groups. Multivariate models show that, among boys, low levels of physical exercise and high levels of sedentary behaviour were both associated with a higher risk of overweight and obesity. Among girls, only low levels of physical exercise were associated with this. Although quality of diet varied significantly across the sample, it is not a good predictor of the risk of overweight or obesity.



## **2. The Influence of Local Food Environment**

Research suggests that living in an area with fewer food outlets or fewer outlets selling affordable, high-quality food may lead to poorer dietary quality. Results show that children from lower socio-economic households tend to live further away from food shops, and particularly larger supermarkets, with more fresh food such as fruit and vegetables. Controlling for the characteristics of the parents such as their income, level of education and social class, statistical models show that the distance to food outlets has a negative impact on the child's diet, but, interestingly, only for girls. The further away from a food outlet that the girl lives, the lower the quality of her diet. It is unclear why the effect is insignificant for boys.

## **3. Child and Parental Recognition of Overweight and Obesity**

Although less than 2% of the parents of children classed as overweight or obese by BMI report that their child is underweight, 54% of parents of overweight children and 20% of parents of obese children report that they are 'about the right' weight for their height. Parents of girls tend to have a more accurate perception of their child's weight status than the parents of boys. Mothers who are overweight or obese are less likely to perceive this in their child.

## **4. Child Overweight and Self-Concept**

Perception of being under- or overweight has a significant impact on the child's self-concept and self-esteem. Children who perceive themselves as underweight or overweight score significantly lower on the Piers-Harris measures of child self-concept for physical appearance and popularity. Controlling for other factors, the perception of being under- or overweight is associated with higher levels of emotional and behavioural problems, as measured using the Strengths and Difficulties Questionnaire (SDQ). Results show that the child's perception of being overweight is associated with higher levels of emotional and behavioural difficulties and, moreover, that most of this association is mediated by their lowered self-esteem.

## **5. Policy Implications**

- Levels of overweight and obesity among children in Ireland are high relative to other Northern European countries and continue to increase. This has important implications for the health and well-being of children in Ireland and will increase the proportion of obese adults in the future. Left unchecked, this trend could reverse recent improvements in life expectancy and disability and will have significant implications for health-care costs.



- Accurate parental perception of child weight would be helped if the heights and weights of children and parents were routinely measured when they visited their GP and the parents were informed of the child's BMI and its implications for current and future health.
- The child's school offers another opportunity to measure weight status. Child vaccination and dental and optical checks are already a part of the public health nurse (PHN) routine in Irish schools. Consideration should be given to the inclusion of height and weight measures in this routine.
- Levels of physical activity among children, and girls in particular, are low. The importance of physical education in schools needs to be underlined with national standards, but sports policy also needs to reflect a holistic vision which integrates, supports and encourages all those involved in the provision of sport and exercise for children.
- Expenditure on education campaigns aimed at parents and focusing on children's diet, physical exercise and sedentary activities would be a good investment. Parents need concrete guidelines about their children's lifestyles.
- Worse health behaviours (worse diets and less physical exercise) and higher levels of obesity among working-class children suggest that resources for interventions should be heavily targeted at lower socio-economic schools and communities. However, interventions to promote behavioural change will have limited effect if the structural reasons for the higher levels of risk factors among lower socio-economic groups are not also tackled. This will require a far larger effort across a number of different agencies that would be facilitated by leadership from a core government department such as the Department of the Taoiseach, in a similar manner to that adopted for 'poverty proofing' under the National Anti-Poverty Strategy.
- This report uses data from one wave of the **GUI** study, which confines analysis to cross-sectional patterns of association. Future waves of the study will allow longitudinal analysis and more insight into the causal relationships involved.

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