

Joint Committee on Children and Youth Affairs

Meeting on Wednesday 2nd of May 2018

Tackling Childhood Obesity

Chairman and Committee Members, I would like to thank you for the opportunity to speak to you today about a paediatric health issue that is assuming national importance. I am a Senior Research Fellow at Trinity College Dublin, and Principal Investigator of a Health Research Board (HRB) funded project examining socio-economic inequalities in population health. The statement I am going to give to you today is informed by my published research on obesity using the Growing Up in Ireland (GUI) study, a large nationally representative cohort study of child development in Ireland that tracks the progress of two cohorts of children over a span of years. These studies are instructive because they allow us to estimate the national prevalence of childhood overweight and obesity in Ireland, how it changes over time, and the factors impinging on same. Like many others that have addressed this committee, I do not have good news.

Obesity is considered to have reached epidemic proportions in both adult and child populations. According to figures provided by Growing Up in Ireland, 19% of children aged 3 years are overweight and 6% are obese. These figures are extremely concerning from a population health perspective because obesity tends to track and children who are overweight / obese in childhood are more likely to maintain this status into adolescence and adulthood. Fifty-five percent of obese children will become obese adolescents, and 80% of obese adolescents will become obese adults. Childhood adiposity has downstream consequences for disease risk in later life including risk for type 2 non-insulin dependent diabetes mellitus (NIDDM), hypertension, and cardiovascular disease. Psychological sequelae of childhood overweight/obesity include, peer-group victimisation, lower self-esteem, and depression.

Factors contributing to increased obesity among children are multitudinous and complex. At its most simple, obesity results from a mismatch between energy intake and energy expenditure. A host of factors have been identified at the individual-level including declining rates of physical activity, increased sedentary behaviour, and changing dietary habits. The environment in which our children are developing has been described as obeseogenic. Parental overweight is one of the strongest predictors of childhood overweight reflecting the contribution of shared genes and shared environment. We have previously shown that a child

is 3.2 times more likely to be obese if one parent is overweight/obese, and 9.5 times more likely to be obese if both parents are overweight or obese. Moreover, overweight parents are less likely to spot overweight in their children. Worryingly, our research shows that 54% of parents of overweight children and 20% of parents of obese children in the Growing Up in Ireland childhood cohort reported that they are ‘about the right’ weight for their height. Health promotion literature suggests that behaviour change and weight reduction can only come about once the individual recognises the need for change, yet it is clear that many parents have a poor understanding of appropriate body weight. Parents shape their children’s eating behaviour not only through the foods they make accessible to their children, but also through parental modelling, parenting practices and reinforcement. Children’s and parents’ dietary intakes are correlated for most nutrients so intervention efforts should be designed to target parents and family units.

One of the most concerning findings from our research on childhood obesity with the Growing Up in Ireland cohorts is the stark socio-economic inequalities that are evident at a very early age. Indeed, studies have consistently shown that childhood overweight and obesity is more heavily concentrated in lower socio-economic status (SES) households.

Although there is some tentative evidence that rates of childhood overweight and obesity may have stabilized in recent years in some high income countries, this trend has not occurred at an equal pace across all socio-economic groups. Data from the Growing Up in Ireland infant cohort shows that 9 percent of children from lower secondary educated maternal backgrounds are obese at 3 years of age compared with 4 percent of children from degree educated maternal backgrounds. This means that by the time they arrive at the door of the pre-school to avail of the Government’s Early Childhood Care and Education (ECCE) scheme, children from lower SES backgrounds are already 16% more likely to be overweight and 2.3 times more likely to be obese compared with their higher SES peers. Moreover, the data tells us that these socio-economic inequalities continue to widen thereafter. By 13 years of age, shortly after they have made the transition to secondary school, children from lower SES backgrounds are 56% more likely to be overweight and 3.5 times more likely to be obese (Figure 1). There are no differences in BMI at time of birth but children from lower SES backgrounds will weigh approximately 1 kilogram per metre squared heavier by 13 years of age compared with their heavier SES counterparts (Figure 2).

Our analysis of longitudinal patterns indicates that children from lower socio-economic status (SES) are more likely to be overweight/obese at any age, are more likely to become overweight or obese if previously non-overweight, and are more likely to maintain overweight/obese status over time. This means that children from lower SES backgrounds are quite literally carrying around a heavier burden of disease from much earlier in the life course. Recent research suggests excess adiposity represents a major pathway through which social inequality gets ‘underneath the skin’ to precipitate earlier morbidity and mortality among more disadvantaged groups. These findings reinforce the necessity of challenging the childhood obesity epidemic at early ages because our analysis has shown that these patterns are difficult to change once they become entrenched.

We need to urgently address the material, structural, and cultural factors that contribute to the emergence of these inequalities in early life. International research (including our own) suggests that the period from infancy extending through early childhood is a critical one for growth and development. Our research with the GUI infant cohort shows that children from semi/unskilled social class backgrounds weigh 135 grams lighter at time of birth compared with children from professional social class backgrounds, but experience more rapid weight gain thereafter to the extent that they weigh 250 grams heavier by 3 years of age. Factors contributing to this pattern of rapid weight in the first 9 months of life include, earlier transition to solid foods (before 6 months of age), lower rates of breastfeeding (which has been shown to be protective against the development of obesity), and prenatal tobacco smoke exposure. Factors associated with rapid weight gain between 9 and 3 years of age include lower dietary quality, higher maternal BMI, and higher levels of television watching, all of which are socio-economically patterned. Statistical adjustment for this constellation of risk factors (early infant nutrition, maternal prenatal behaviours, and child diet and lifestyle) fully explained the class differentials that exist in relation to childhood obesity at 3 years of age. Importantly, these risk factors are all modifiable and so represent an opportunity to intervene and reduce the riskier body mass trajectories of lower SES groups.

It is important that we understand the socio-cultural context in which these social inequalities emerge. Studies of household food purchases generally report a positive association between household SES and the quality and variety of purchased foods. International evidence suggests that high quality diets are more expensive than low quality diets and that those on low incomes are more sensitive to the cost of food. The introduction of the recent Sugar Tax

may lead to a reduction in unhealthy food consumption, but strategies are also needed on the other side to encourage consumption of nutritive dense foods.

Breastfeeding has been shown to be protective against the development of obesity. We have previously shown that being breastfed for a period of 6 months or more is associated with a 49% reduction in the risk of obesity at 3 years of age and a 51% reduction in the risk of obesity at 9 years of age. Ireland has the lowest breastfeeding rate in Europe with initiation rates just above 50%. Women from lower SES backgrounds are 80% less likely to breastfeed. Measures to increase rates of breastfeeding should be a national priority, and resources allocated to increase breastfeeding rates among more disadvantaged groups. This will involve a commitment to substantially increase the level and provision of support for breastfeeding in Ireland, in addition to providing a sufficient level of central funding to help achieve this goal. In summarising, let me repeat: one in four 3-year-olds now overweight (19%) or obese (6%). 80% of the older Irish population now overweight (43%) or obese (36%) according to figures provided by the Irish Longitudinal Study on Ageing (TILDA). Ireland is on target to be the fattest country in Europe by 2030 according to the World Health Organisation. We need to act urgently to address this problem. We know that the factors contributing to the increase in childhood overweight and obesity are multitudinous, and that solutions will have to be multifaceted. Tackling it will require co-ordinated action across a number of Government departments, and the involvement of stakeholders, including parents, schools, community based-organisations, healthcare providers, and the private and public sectors.

We recommend that:

1. The Government give a political commitment to tackling childhood obesity and develop an action plan to achieve this.
2. The Government implement a national screening program for BMI and waist circumference in school-age children on an annual basis.
3. The Government set national targets for the reduction of childhood obesity, and an evaluation programme for monitoring success of this goal.
4. The Government establish clear targets for reducing socio-economic inequalities in childhood obesity.
5. The Government consider the use of targeted intervention initiatives for high-risk groups (e.g. low SES)

I would like to conclude by thanking the committee members for their time and wish them well in their important work.