

# ESRI Research Bulletin

## *Does Pregnancy Offer Us a Chance to Reduce Obesity in Ireland?*

Richard Layte (ESRI) and Michael Turner (UCD)

The *Research Bulletin* provides short summaries of work published by ESRI staff and overviews of thematic areas covered by ESRI programmes of research. Bulletin articles are designed to be easily accessible to a wide readership. A reference or references to the full publication is included at the end of each Bulletin article.

An archive of bulletin articles will be found at [www.esri.ie/bulletin](http://www.esri.ie/bulletin)



# Does Pregnancy Offer Us a Chance to Reduce Obesity in Ireland?

---

Richard Layte\* (ESRI) and Michael Turner (UCD)

Rates of overweight and obesity have been increasing both in Ireland and internationally in recent decades. Two-thirds of men and over half of women in Ireland are overweight and around a fifth of both are now obese. Obesity is a well established risk factor for diabetes, heart disease, stroke and a number of cancers so the increasing obesity rate is a major health concern as well as a contributor to growing health costs in Ireland.

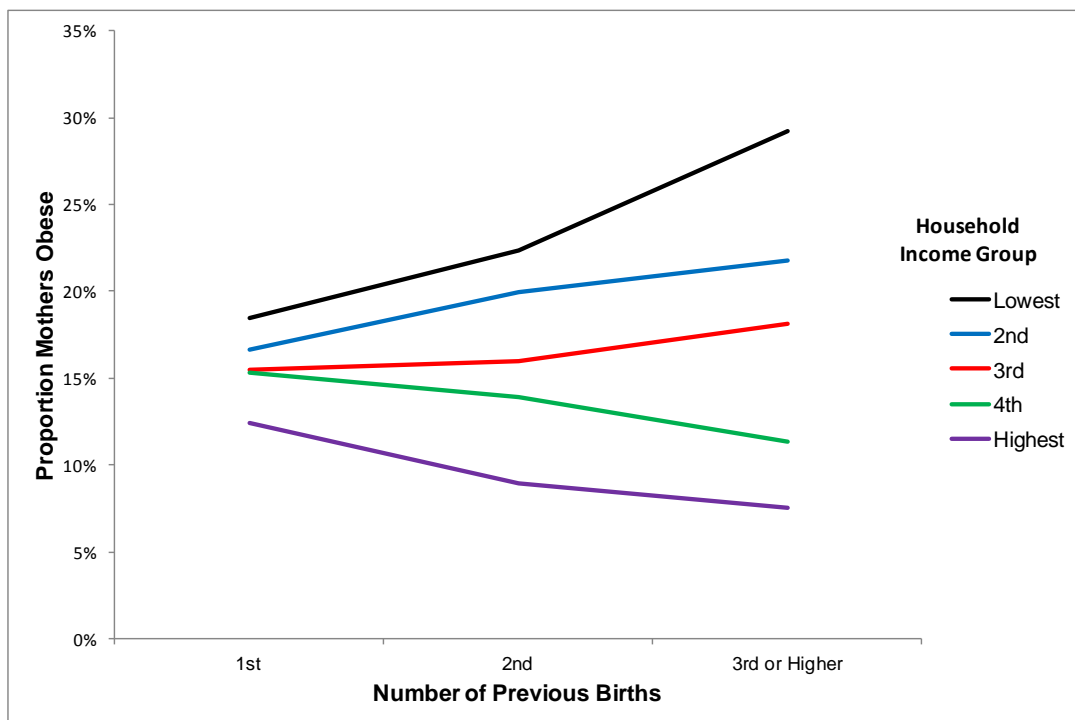
Why are Irish people putting on weight? The reality is that we are consuming too many calories and not getting enough exercise largely because of changes in lifestyle over the last three decades. Our jobs are now more sedentary and people tend to take less 'incidental' exercise through walking or cycling for transport. Diets have changed too. High calorie, fatty, sugary foods are now cheaper and more widely available than ever before leading to more 'snacking' between meals than in the past.

These changes do not happen overnight and research shows that small changes in diet and exercise over a long period often lead to obesity. The gradual development of obesity risk was described in recent research published in the *American Journal of Obstetrics and Gynaecology* by Michael Turner of UCD and Richard Layte of the ESRI. The research, based on 11,134 women who took part in the Growing Up in Ireland Study, showed that there was a gradual increase in the risk of obesity with the number of children that a woman had given birth to even adjusting for her age and a large number of other factors. Almost 16% of women were measured as being obese 9 months after the birth of their first child but this risk rose by 7% after the birth of the second child. By the third child the risk had risen by 30% and for the fourth or subsequent child, by 63%. Anyone who has had a child recognises the situation. Care of the new child crowds out other activities like cooking proper meals and makes it more difficult to get some exercise. This means that pregnancy and parenthood may well be a crucial period for the risk of future obesity and, by implication, for later risk of chronic disease and ill health.

\* richard.layte@esri.ie

The research showed that some groups were more at risk of weight gain than others: women in the lowest income group are 42% more likely to be obese than women in the highest income group. Whereas the risk of obesity falls for more affluent women when more children arrive, it tends to rise for women in the three lowest income groups as shown by the accompanying chart. Pregnancy related obesity is not just a problem for mothers. Other research based on the Growing Up in Ireland Study shows that excess weight gain in pregnancy and maternal obesity are strongly associated with the risk of child obesity.

**FIGURE 1 The Mother’s Risk of Obesity by Income Group and Number of Previous Births**



Changes in diet and lifestyle may be central to the risk of obesity with parenthood but breastfeeding is also a significant issue. Women who breastfeed for six months or more (as is recommended by the World Health Organisation and the Irish Government) are 35% less likely to be obese than women who do not, even adjusting for income and other factors. Ireland has one of the lowest breastfeeding rates in the world with just over half of women breastfeeding their child at all. Even when Irish women do breastfeed the duration is shorter than in other countries: just over 3 months on average. Less than a third of women in the lowest income group breastfed their child and this contributes to their higher risk of obesity with pregnancy.

These findings have some important policy implications. First, pregnancy should be seen as an important period when health care professionals have the chance to engage with women and their partners to ensure both healthy weight gain in pregnancy and a healthy lifestyle thereafter. In this sense pregnancy may be vital in our fight against obesity and overweight as it gives people the chance to assess their lifestyles and in so doing shape the long term health risks of all the family. Second, the research suggests that greater involvement of male partners in antenatal care may be positive as partners influence each other's lifestyles in terms of diet, exercise and smoking. Thirdly, the research shows that health care professionals need to invest more time and effort with lower income, lower education couples who are at a greater risk of gaining weight.

The full text of the paper is available here:

<http://dx.doi.org/10.1016/j.ajog.2013.04.020>