

## Obesity in pregnancy: An increasing burden

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Obesity is becoming an increasingly common problem, both in the general population and in women of reproductive age. Obesity has assumed epidemic proportions in the developed world and in the UK. Increased association between morbidity and mortality with obesity is well established in both pregnant and non-pregnant women. This worldwide rise in prevalence of obesity has led to the WHO declaration that “obesity is a major killer disease of the millennium on par with HIV and malnutrition”.

The health survey for England 2014 states that obesity rates in men increased from 13.2% to 24.4% and for women, increased from 16.4% to 25.1% between 1993 and 2012. Increased rates of obesity on this scale demonstrate the proposed increased in healthcare burden is not fictional.

Increasing obesity in women of reproductive age carries very real risks for both mother and fetus. Confidential enquiries into maternal and child health (CEMACH) regularly states that raised BMI is associated with a disproportionately high number of maternal deaths in childbearing women.

With the increasing prevalence of obesity in childbearing women, so there is an increasing prevalence of gestational diabetes in pregnancy. Gestational diabetes is defined as any degree of glucose intolerance with the onset of first recognition during pregnancy. The overall incidence in the UK is around 3-5%, however this incidence increases to 20-25% in women with a BMI over 40. Gestational diabetes in pregnancy has many risks related to obstetric morbidity, for example, increased caesarean section rates. The fetus is also exposed to risks associated with macrosomia (large baby) such as shoulder dystocia and also increasing rates of stillbirth. The long term consequences for half of the obese mums who develop diabetes in pregnancy is the development of Type II diabetes within the next ten years. For the children of obese women it is the high risk of childhood obesity.

For those women with a BMI greater than 40 with pregnancy complicated by diabetes, approximately a quarter will have some form of glucose intolerance/Type II diabetes on post natal testing. This obviously has major long term consequences for both the woman, her children and the NHS.

There has been much work on interventional steps related to lifestyle, diet and pharmacological agents with regards to reducing the impact of obesity within pregnancy. We aim to explore this further with the Sheffield Hallam University, looking at aspects of motivational measures and their effect on imparting lifestyle changes in overweight women in pregnancy. We hope that underpinning the key lifestyle messages received within pregnancy using motivational techniques, will both have a positive impact on maternal weight gain and diabetes risk within pregnancy.