

Why is this issue important?

Women who are obese* before they become pregnant are at increased risk of pregnancy complications including gestational diabetes, pre-eclampsia and having a baby who is 'large-for-gestational age'. Excessive weight gain during pregnancy in women who were obese pre-pregnancy has been associated with consequences for their child's longer-term health. These include increased risk of childhood obesity and behavioural and emotional problems, such as autistic spectrum disorders.¹ Lower weight gain in pregnancy may be associated with less weight retention after the baby is born.² In the 2016 Scottish Health Survey, almost one in five women aged 16–24 years were obese, increasing to almost one in three aged 35–44 years.³

Are there inequalities to consider?

Women in the most deprived areas are more likely to be obese than those living in the least deprived.⁴

Challenges and solutions

- Weight loss during pregnancy is not currently recommended, so prevention and management of obesity before conception and after birth is key.⁵
- Reducing the risk of excessive weight gain in pregnant women is important. However, there are no current UK guidelines about recommended weight gain during pregnancy.⁵
- Pregnant women should be encouraged to eat a healthy diet and take at least 30 minutes' physical activity each day to avoid excessive weight gain.⁵

* Adults are categorised as obese if their body mass index (BMI) is greater than or equal to 30 kg/m². People from South Asian, Chinese, African-Caribbean or black African backgrounds are considered to be obese if their BMI is greater or equal to 27.5 kg/m².

- Pregnant women living on a low income should be encouraged and supported to apply for Healthy Start vouchers which can be exchanged for fresh or frozen fruit and vegetables.⁵

Positive outcomes have been associated with weight management programmes for women who are not pregnant that:^{6,7}

- offer multi-component approaches including an energy-restricted diet with calorie counting, physical activity and behaviour-change technique elements
- are longer term (at least a year) and higher intensity (at least 12 contacts)
- include programme elements tailored to individual circumstances such as age, gender, cultural preferences, cognitive and literacy abilities as this is likely to improve uptake and engagement with programmes.⁸

Without changes to the environment in which women live, the effect of most programmes is likely to be relatively modest.⁹ Approaches such as the reformulation of food and drinks high in sugar and regulation of portion size of out-of-home food could support efforts to maintain a healthy weight.^{9,10}

Examples of positive action

- The **healthyliving award** is a national award for the food service sector in Scotland to encourage changes to catering practices and ingredients. The use of healthier ingredients and cooking methods are promoted to keep fat, salt and sugar to a minimum, and making sure that options such as water, low-fat dairy products, and fruit and vegetables are always available.
- The **Healthcare Retail Standard (HRS)** is a mandatory requirement for all stores and trolley services in NHS healthcare settings in Scotland. All retail outlets in healthcare settings are required to have at least 50% of their products from a healthier range and they are restricted in what can be actively promoted in the store.
- The **Scottish Grocers' Federation (SGF) Healthy Living Programme** aims to increase the range, quality and affordability of fresh produce and other healthier products in convenience retail stores across Scotland. The focus, in particular, is in communities within areas of deprivation.

- **Healthy Start** is a UK-wide food and vitamin voucher scheme for low-income pregnant women and families, and pregnant women under the age of 18 years, regardless of financial circumstances. About one-quarter of eligible pregnant women and families with children miss out on vouchers. The **Early Years Collaborative Leith Pioneer project** in NHS Lothian focused on improving uptake of the vouchers.

Main indicators[†]

- Maternal obesity (CYP).

Linked indicators

- Developmental concerns at 27–30 months (CYP).
- Child obesity in Primary 1 (CYP).
- Premature births (CYP).

Resources

- Scottish Government. **A Healthier Future: Scotland's Diet & Healthy Weight Delivery Plan**. Edinburgh: SG; 2018.
- National Institute for Health and Care Excellence. **Obesity pathway**.
- National Institute for Health and Care Excellence. **Obesity – working with local communities [PH42]**; 2012.
- Martin L, Bauld L, Angus K. **Rapid evidence review: The impact of promotions on high fat, sugar and salt (HFSS) food and drink on consumer purchasing and consumption behaviour and the effectiveness of retail environment interventions**; 2017.
- Castle A. **Obesity in Scotland SPICe briefing 15/01**; 2015.
- The Lancet series. **Maternal obesity**.
- ScotPHO. **Children and young people: key points**.
- ScotPHO. **Obesity: key points**.
- ScotPHO. **Pregnancy, births and maternity**.

[†] The letters in brackets indicate the profile the indicator can be found in. CYP = Children and young people's profile; HWB = health and wellbeing profile.

References

- ¹ Godfrey KM, Reynolds RM, et al. **Influence of maternal obesity on the long-term health of offspring.** *Lancet Diabetes & Endocrinology* 2017;5:53–67.
- ² National Institute for Health and Care Excellence. **Antenatal Care. Evidence update 41.** Manchester: NICE; 2013.
- ³ Bardsley D. Obesity. In: McLean J, Christie S, Gray L, Editors. **The Scottish Health Survey. Volume 1: Main report. 2016 edition.** Edinburgh: Scottish Government; 2018:134–158.
- ⁴ Bromley C, Tod E, McCartney G. **Obesity and health inequalities in Scotland. Summary report.** Edinburgh: NHS Health Scotland; 2017.
- ⁵ National Institute for Health and Care Excellence. **Weight Management before, during and after pregnancy. Public Health Guidance 27.** NICE; 2010.
- ⁶ National Institute for Health and Care Excellence. **Weight management; lifestyle services for overweight or obese adults. Public Health Guidance PH53.** Manchester: NICE; 2014.
- ⁷ SIGN. **Management of obesity. SIGN guidelines 115.** Edinburgh: Scottish Intercollegiate Guidelines Network; 2010.
- ⁸ Bambra CL, Hillier FC, et al. **How effective are interventions at reducing socioeconomic inequalities in obesity among children and adults? Two systematic reviews.** *Public Health Research* 2015;3(1).
- ⁹ Hawkes C, Smith TG, et al. **Smart food policies for obesity prevention.** *Lancet.* 2015;385:2410-21.
- ¹⁰ Roberto CA, Swinburn B, et al. **Patchy progress on obesity prevention: Emerging examples, entrenched barriers, and new thinking.** *Lancet* 2015;385(9985):2400-9.