Table 2. Gestational maternal weight gain and pregnancy outcomes

	Outcome	Type of study	Result
Viswanathan M et al (2008)	Caesarean delivery	Meta-analysis	Moderate evidence
Stotland NE et al (2004)	Caesarean delivery	Observational study Retrospective cohort study	OR: 1.40 (95% CI: 1.22-1.59) for women with excessive weight gain
Jensen DM et al (2005)	Gestational hypertension	Meta-analysis	Increasing weight gain in obese women was associated with significantly higher rates of hypertension (OR 4.8; 95% CI: 1.7-13.1), caesarean section (OR: 3.5; 1.6-7.8), induction of labour (OR: 3.7; 1.7-8.0) and large-for-gestational-age infants (OR: 4.7; 2.0-11.0)
Viswanathan M et al (2008)	Preterm birth	Meta-analysis	Strong evidence supported an association between gestational weight gains and preterm birth
Viswanathan M et al (2008)	Macrosomia	Meta-analysis	Strong evidence supported an association between gestational weight gains and macrosomia
Simas TAM et al (2012)	LGA	Meta-analysis	Excessive GWG associated with increased odds of LGA. Adjusted OR: 1.76 (95% CI: 1.38-2.24), 2.99 (1.92-4.65) and 1.55 (1.10-2.19) for normal weight, overweight and for obese women, respectively
Vesco KK et al (2014)	LGA	Interventional study	Intervention participants gained less weight and had a lower proportion of LGA babies (9 vs. 26%; OR: 0.28; 95% CI: 0.09-0.84)
Oken E et al (2007)	Childhood overweight	Observational study	Greater than IOM recommendations weight gain was associated with higher child BMI z-score (0.13 units per 5 kg; 95% CI: 0.08-0.19) Compared with inadequate weight gain, women with adequate or excessive weight gain had children with higher BMI z-scores [0.47 (0.37-0.57) and 0.52 (0.44-0.61), respectively] and OR for overweight children 3.77 (1.38-10.27) and 4.35 (1.69-11.24), respectively
Oken E et al (2008)	Obesity in adolescence	Observational study	Women with excessive weight gain had children with higher BMI z-scores (0.14 units, 95% CI 0.09-0.18) and risk of obesity [OR: 1.42 (1.19-1.70)]
Al Mamun A et al (2009)	Obesity in young adulthood	Observational study	At 21 years of age, offsprings' BMI was on average 0.3 kg/m^2 (95% CI: 0.1-0.4) higher for each 0.1 kg/wk greater GWG after adjustment for potential confounding factors
Saldana TM et al (2006)	IGT-GDM	Observational study	Weight gain during pregnancy was associated with IGT only among overweight women
Henderson MM et al (2010)	IGT-GDM	Observational study	Rates of weight gain from 0.27-0.40 kg/wk and 0.41 kg/wk or more, were associated with increased risks of GDM [OR: 1.43; 95% CI: 0.96-2.14; and 1.74; 1.16-2.60, respectively]
Morisset AS et al (2011)	IGT-GDM	Observational study	First trimester weight gain was a significant and independent predictor of GDM [OR: 1.25; 95% CI 1.10-1.42)
Gibson KS et al (2012)	IGT-GDM	Observational study	Maternal weight gain was higher (P <.001) in the GDM group (14.8 lb) than in the control group (11.2 lb)
Al Mamun A et al (2010)	Overweight/Obesity in later life (for the mothers)	Observational study	Increased OR for women with excess weight gain during pregnancy to become overweight (2.15; 95% CI: 1.64-2.82) or obese (4.49; 3.42-5.89) 21 years after the index pregnancy
Al Mamun A et al (2013)	DM in later life (for the mothers)	Observational study	1.47-fold (1.11-1.94) risk for mothers with excess weight during pregnancy to experience diabetes at 21 years postpartum compared to mothers with adequate weight gain

OR: odds ratio; CI: confidence interval; GWG: gestational weight gain; LGA: large-for-gestational-age; IOM: institute of medicine; BMI: body mass index; IGT: impaired glucose tolerance; GDM: gestational diabetes mellitus; DM: diabetes mellitus.