

Prepregnancy body weight and gestational weight gain—recommendations and reality in the USA and in Germany

OBJECTIVE: The body mass index (BMI) and gestational weight gain can affect the health of the pregnant woman and her newborn,^{1,2} and optimal maternal and neonatal outcomes occur when weight gain is less than the Institute of Medicine (IOM) recommendations.³ In 2013, the American College of Obstetricians and Gynecologists (ACOG) published a committee opinion on weight gain during pregnancy,⁴ which is based on updated 2009 IOM guidelines.⁵ The objective of this study was to review adherence with these ACOG/IOM guidelines in American and German pregnant women.

STUDY DESIGN: United States data in this report are based on single term (37 weeks or longer) nulliparous births from 2011 to 2012 Centers for Disease Control and Prevention birth certificate data (n = 2,082,279). German data are based on single term nulliparous participants from 2004 and 2013 of the German BabyCare Program as well as available medical records at delivery (n = 1656). Weight gains for German and American pregnancies were calculated for each BMI group for those staying below, within, and above

the recommended gestational weight recommendations by ACOG/IOM.

RESULTS: Before pregnancy, 4% of all American women were underweight, 47% were normal, and 48% were overweight, whereas 4% of German women were underweight before pregnancy, 72% were normal, and 24% were overweight ($P < .001$). Table shows the distribution of pregnancy weight gains by BMI groups and below, within, and above ACOG/IOM weight gain recommendations. Only 32% of American pregnancies were within recommended weight gains, 48% were above, and 20% were below. Only 34% of German pregnancies were within the IOM recommended weight gain, 27% were above, and 39% were below ($P < .001$). American women exceeded weight gain recommendations from 23% to 61% of pregnancies as compared with 5%-58% of German women.

CONCLUSION: This study confirms the trans-Atlantic epidemic of obesity and noncompliance with the ACOM/IOM recommended prepregnancy body weight and weight gains in pregnancy. In both countries, there has been a dramatic

TABLE

Compliance with gestational weight gain recommendations in the different BMI categories in the United States and Germany

Gestational weight gain recommendations	United States			Germany		
	Below	Within	Above	Below	Within	Above
Overall	20%	32%	48%	39%	34%	27%
Underweight BMI, <18.5 kg/m ²	32%	45%	23%	49%	28%	23%
Normal weight BMI, 18.5–24.9 kg/m ²	24%	39%	47%	42%	40%	18%
Overweight BMI, 25–29.9 kg/m ²	13%	24%	61%	25%	17%	58%
Obese BMI class 3 BMI, 30–34.9 kg/m ²	15%	24%	41%	30%	20%	50%
Obese BMI class 2 BMI, 35–39.9 kg/m ²	23%	27%	50%	37%	17%	46%
Obese BMI class 3 BMI, ≥40 kg/m ²	32%	27%	41%	62%	33%	5%

BMI, body mass index.

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increase of prepregnancy obesity as well as great differences between the prepregnancy BMI and the recommended BMI adherence to ACOG/IOM recommendations for the weight gains of pregnant women. Pregnant women in both countries fail to begin pregnancy with a healthy BMI: in the United States, 48% of pregnant women start their pregnancies being overweight as compared with 24% in Germany. Less than 1 in 3 American or German women stayed within the recommended weight gains during pregnancy, and 2 in 3 women were noncompliant with recommended IOM weight gains during pregnancy. Forty-eight percent of American and 27% of German pregnant women have higher weight gains than those recommended by the Institute of Medicine. These data confirm that the obesity epidemic reaches outside the United States. It is important to counsel women in the United States and Germany well before and during pregnancy about proper nutrition with the goal to prevent perinatal risks associated with failures of optimal prepregnancy weight and gestational weight gains. ■

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