

**Low Maternal Weight Gain**

**Definition/  
cut-off value**

**Low maternal weight gain is defined as:**

1. A low rate of weight gain, such that:

In the 2<sup>nd</sup> and 3<sup>rd</sup> trimesters, singleton pregnancies:

- C Underweight women gain less than (<) 4 pounds per month
- C Normal/Overweight women gain less than (<) 2 pounds per month
- C Obese women gain less than (<) 1 pound per month

OR

2. **Low weight gain at any point in pregnancy**, such that:

Using an Institute of Medicine (IOM)-based weight gain grid, a pregnant woman’s weight plots at any point beneath the bottom line of the appropriate weight gain range for her respective prepregnancy weight category (underweight, normal, overweight, or obese). An IOM-based weight grid is one based on IOM’s 1990 recommendations for maternal weight gain (e.g., recommended range of 28-40 pounds for underweight women, 25-35 pounds for normal weight women, 15-25 pounds for overweight women, and at least 15 pounds for obese women).

Underweight            BMI < 19.8

Normal Weight        BMI 19.8 to 26.0

Overweight            BMI 26.1 to 29.0

Obese                    BMI ≥ 29.1

Note: Until research supports the use of different BMI cut-offs to determine weight categories for adolescent pregnancies, the same BMI cut-offs will be used for all women, regardless of age, when determining WIC eligibility. (See Justification for a more detailed explanation.)

**Participant  
category and  
priority level**

**Category**

**Priority**

Pregnant

I

**Justification**

Low maternal weight gain during the 2<sup>nd</sup> and 3<sup>rd</sup> trimesters is a determinant of fetal growth, and is associated with smaller average birth weights and an increased risk of delivering an infant with fetal growth restriction. The supplemental foods and nutrition education provided by the WIC Program may

**Justification (cont)** improve maternal weight status and infant outcomes

The 1998 National, Heart, Lung and Blood Institute (NHLBI) Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults, defines weight classifications differently than Institute Of Medicine (IOM) in their 1990 report, Nutrition During Pregnancy. The IOM classifications were subsequently validated for pregnancy by Parker and Abrams and by Siega-Riz et al and others. If future research shows that prenatal weight gain using the NHLBI definitions of adult weight status is safe for pregnancy and results in similar pregnancy outcomes, the definitions will be revised.

The IOM established prenatal weight gain recommendations based on prepregnancy BMI categories (i.e., low, normal, high, obese). As validated by Parker and Abrams, the IOM weight gain recommendations for each weight category are associated with healthy birth outcomes. The decision to use the IOM recommended BMI weight categories for pregnant adolescents as well as for adults is based on three factors.

- There are no established BMI cut-offs to define weight categories (with corresponding recommendations for prenatal weight gain) specific to adolescents.
- There is no research to support using the CDC issued BMI-for-age chart to define prepregnancy BMI weight categories for adolescents.
- It is consistent with the recommendations of the Expert Work Group on Maternal Weight.

It is recognized that both the IOM and the NHLBI BMI cut-offs for defining weight categories will classify some adolescents differently than the CDC BMI-for-age charts. For the purpose of WIC eligibility determination, the IOM and the NHLBI BMI cut-offs will be used for all women regardless of age. However, due to the lack of research on relevant BMI cut-offs for pregnant and postpartum adolescents, professionals should use all of the tools available to them to assess these applicants' anthropometric status and tailor nutrition counseling accordingly.

For twin gestations, the recommended range of maternal weight gain is 35-45 pounds with a gain of 1.5 pounds per week during the second and third trimesters. Underweight women should gain at the higher end of the range and overweight women should gain at the lower end of the range. Four to six pounds should be gained in the first trimester. In triplet pregnancies the overall gain should be around 50 pounds with a steady rate of gain of approximately 1.5 pounds per week through out the pregnancy.

For WIC eligibility determinations, multifetal pregnancies are considered a nutrition risk for WIC in and of themselves (Risk #335), aside from the weight gain issue. Education by the WIC nutritionist or paraprofessional should address a steady rate of gain that is higher than that of the singleton pregnancy.

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**Clarifications/  
Guidelines**

The Texas WIC Program recommends the use of option 2; “Low weight gain at any point in pregnancy” using the Institute of Medicine-based weight gain grid – Range of Prenatal Weight Gain (WIC-4), when assigning this risk code. If a pregnant woman plots at any point beneath the bottom line of the appropriate weight gain range for her respective prepregnancy weight category, this is considered “low maternal weight gain.”

Although this definition specifies “weight gain,” if the pregnant woman has lost weight and her weight plots below the recommended weight gain range, or she has not gained the recommended pounds per month during the 2<sup>nd</sup> or 3<sup>rd</sup> trimesters, it is appropriate to assign this risk code.

The Centers for Disease Control and Prevention (CDC) defines a trimester as a term of three months in the prenatal gestation period with the specific trimesters defined as follows in weeks:

First Trimester: 0 through 13 weeks

Second Trimester: 14 through 26 weeks

Third Trimester: 27 through 40 weeks

Further, CDC begins the calculation of weeks starting with the first day of the last menstrual period. If that date is not available, CDC estimates that date from the estimated date of confinement (EDC). This definition is used in interpreting CDC’s Prenatal Nutrition Surveillance System data, comprised primarily of data on pregnant women participating in the WIC Program.

A low rate of weight gain for a singleton pregnancy in the 2<sup>nd</sup> and 3<sup>rd</sup> trimesters will be defined as weight gain of less than 4 pounds /month beginning the 16<sup>th</sup> - 40<sup>th</sup> weeks of pregnancy. The higher weight gain limits of a singleton pregnancy will be used to determine appropriate minimum weight gain for multifetal pregnancies. Obese women will be plotted on the overweight prenatal weight gain grid and expected to have a weight gain that follows the lower limits of the overweight range.

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**References**

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