

Underweight (Breastfeeding Women 6 months or more postpartum)

**Definition/
cut-off value**

Breastfeeding Women Who Are > or equal to 6 Months Postpartum

- current Body Mass Index (BMI) <18.5

Note: Until research supports the use of different BMI cut-offs to determine weight status 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
Breastfeeding Women	I

Justification

Underweight women who become pregnant are at a higher risk for delivery of low birth weight (LBW) infants, retarded fetal growth, and perinatal mortality. Prepregnancy underweight is also associated with a higher incidence of various pregnancy complications, such as antepartum hemorrhage, premature rupture of membranes, anemia, endometriosis, and cesarean delivery.

The goal in prenatal nutritional counseling provided by WIC is to achieve recommended weight gain by emphasizing food choices of high nutritional quality; and for the underweight woman, by encouraging increased consumption and/or the inclusion of some calorically dense foods.

Although the 1998 National, Heart, Lung and Blood Institute (NHLBI) Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults, define underweight as having a BMI less than 18.5; the 1990 Institute of Medicine (IOM) report, Nutrition During Pregnancy, establishes prepregnancy weight classifications that define underweight as having a BMI <19.8. The IOM classifications were subsequently validated for pregnancy by Parker and Abrams and by Siega-Riz et al and others. Recommendations for weight gain during pregnancy therefore are based on the IOM 1990 definitions of prepregnancy weight status.

Justification (cont)

The IOM established prenatal weight gain recommendations based on prepregnancy BMI weight 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 prepregnancy 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 pregnant 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-off 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.

Weight during the early postpartum period, when most WIC certifications occur, is very unstable. During the first 4-6 weeks fluid shifts and tissue changes cause fluctuations in weight. After 6 weeks, weight loss varies among women. Prepregnancy weight, amount of weight gain during pregnancy, race, age, parity and lactation all influence the rate of postpartum weight loss. By 6 months postpartum, body weight is more stable and should be close to the prepregnancy weight. In most cases therefore, prepregnancy weight is a better indicator of weight status than postpartum weight in the first 6 months after delivery. The one exception is the woman with a BMI of <18.5 during the immediate 6 months after delivery. Underweight at this stage may indicate inadequate weight gain during pregnancy, depression, an eating disorder or disease; any of which need to be addressed.

While being on the lean side of normal weight is generally considered

Justification (cont) healthy, being underweight can be indicative of poor nutritional status, inadequate food consumption, and/or an underlying medical condition. Underweight women who are breastfeeding may be further impacting their own nutritional status. Should she become pregnant again, an underweight woman is at a higher risk for delivery of low birth weight (LBW) infants, retarded fetal growth, and perinatal mortality. The role of the WIC Program is to assist underweight women in the achievement of a healthy dietary intake and body mass index.

**Clarifications/
Guidelines** Refer to WIC-04 for BMI nomogram.

- References**
1. Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH), NIH Publication No. 98-4083. www.nih.gov.
 2. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990; pg.12.
 3. Institute of Medicine. WIC Nutrition Risk Criteria: A Scientific Assessment. National Academy Press, Washington, D.C.; 1996.
 4. Parker JD, Abrams B. Prenatal weight gain advice: an examination of the recent prenatal weight gain recommendations of the Institute of Medicine. *Obstet Gynecol*, 1992; 79:664-9.
 5. Siega-Riz AM, Adair LS, Hobel CJ. Institute of Medicine maternal weight gain recommendations and pregnancy outcomes in a predominately Hispanic population. *Obstet Gynecol*, 1994; 84:565-73.
 6. Suitor CW, editor. Maternal weight gain: A report of an expert work group. Arlington, Virginia: National Center for Education in Maternal and Child Health; 1997. Sponsored by Maternal and Child Health Bureau, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services.
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References (cont)

7. Weight Changes in the Postpartum Period: A Review of the Literature. D.T. Crowell. *Journal of Nurse-Midwifery*. Vol. 40, No. 5, September/October 1995; pgs 418-423.
8. Worthington-Roberts, B.S. and S.R. Williams. *Nutrition in Pregnancy and Lactation*, 6th Edition. McGraw-Hill; 1997.

Body Mass Index (BMI) Table for Determining Weight Classification for Pregnant Women(1)

Height (Inches)	Underweight BMI <19.8	Normal Weight BMI 19.8-26.0	Overweight BMI 26.1-29.0	Obese BMI >29.1
58"	<95	95-124	125-138	>138
59"	<98	98-128	129-143	>143
60"	<102	102-133	134-148	>148
61"	<105	105-137	138-153	>153
62"	<108	108-142	143-158	>158
63"	<112	112-146	147-163	>163
64"	<116	116-151	152-169	>169
65"	<119	119-156	157-174	>174
66"	<123	123-161	162-179	>179
67"	<127	127-166	167-185	>185
68"	<130	130-171	172-190	>190
69"	<134	134-176	177-196	>196
70"	<138	138-181	182-202	>202
71"	<142	142-186	187-208	>208
72"	<146	146-191	192-213	>213

(1) Adapted from the Institute of Medicine: Nutrition During Pregnancy, National Academy Press; 1990; page 12.

BMI Table for Determining Weight Classification for Non-Pregnant Women(1)

Height (Inches)	Underweight BMI <18.5	Normal Weight BMI 18.5-24.9	Overweight BMI 25.0-29.9	Obese BMI > 30.0
58"	<89	89-118	119-142	>142
59"	<92	92-123	124-147	>147
60"	<95	95-127	128-152	>152
61"	<98	98-131	132-157	>157
62"	<101	101-135	136-163	>163
63"	<105	105-140	141-168	>168
64"	<108	108-144	145-173	>173
65"	<111	111-149	150-179	>179
66"	<115	115-154	155-185	>185
67"	<118	118-158	159-190	>190
68"	<122	122-163	164-196	>196
69"	<125	125-168	169-202	>202
70"	<129	129-173	174-208	>208
71"	<133	133-178	179-214	>214
72"	<137	137-183	184-220	>220

(1) Adapted from the Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults. National Heart, Lung and Blood Institute (NHLBI), National Institutes of Health (NIH). NIH Publication No. 98-4083.