

## Section Overview

A pregnant woman's body provides the environment for the growth and development of her baby. Because such important growth occurs during pregnancy for both the pregnant woman and her baby, most women can enjoy a healthy pregnancy by eating nutritionally-balanced meals before and during pregnancy, getting prenatal care, gaining a healthy amount of weight, remaining physically active, taking prenatal vitamins, getting plenty of rest, and avoiding cigarettes, alcohol, and drugs .

## Anthropometric Assessment



*Anthropometry* is the measurement of the size, weight, and proportions of the human body. The amount and rate of weight gain in pregnancy is an important part of gathering information for pregnant women in the ABCDE assessment. In pregnancy, the A assessment includes measurement and tracking of prenatal weight gain based on a woman's pre-pregnancy body mass index (BMI). The anthropometric assessment covers WIC codes in the 100s.

### Why Is This Important?

In WIC, we complete an assessment of pre-pregnancy height and weight for pregnant women in order to determine the pre-pregnancy BMI. It is the pre-pregnancy BMI that determines the appropriate total weight gain and recommended rate of weight gain for pregnant participants. WIC also assesses weight gain during pregnancy to ensure healthy pregnancy outcomes for both mothers and their babies.

### A Assessment Considerations in Pregnancy

Weight can be a sensitive subject for many women, especially during pregnancy. Pregnancy can also be an emotional period; this is compounded by feelings of uncertainty regarding the woman's changing body. Be sensitive when addressing pre-pregnancy weight and pregnancy weight gain guidelines by allowing the participant to "lead the dance" in exploring feelings and beliefs regarding weight gain.

Weight gain guidelines during pregnancy are provided through the Institute of Medicine (IOM). In women with a pre-pregnancy BMI within the normal range, a weight gain of 25 to 35 pounds is associated with the best health outcomes for mom and baby. Weight gain for women with multiple-birth pregnancies, such as twins or triplets, is approximately 37 to 54 pounds for women with a pre-pregnancy BMI within the normal range. Weight loss during pregnancy is discouraged. Specific IOM recommendations for pregnancy weight gain based on pre-pregnancy BMI include the following:

- Pre-pregnancy BMI less than 18.5 may gain 28–40 pounds, or approximately 2.2–6.6 pounds in the first trimester and 1–1.3 pounds per week in the second and third trimesters
  - Women in this category that are pregnant with multiples should talk with their healthcare provider about weight gain recommendations
- Pre-pregnancy BMI of 18.5–24.9 may gain 25–35 pounds, or approximately 2.2–6.6 pounds in the first trimester and 0.8–1.1 pounds per week in the second and third trimesters
  - Women in this category that are pregnant with multiples may gain 37–54 pounds
- Pre-pregnancy BMI of 25.0–29.9 may gain 15–25 pounds, or approximately 2.2–6.6 pounds in the first trimester and 0.5–0.7 pounds per week in the second and third trimesters
  - Women in this category that are pregnant with multiples may gain 31–50 pounds
- Pre-pregnancy BMI greater than 30.0 may gain 11–20 pounds, or approximately 0.5–4.4 pounds in the first trimester and 0.4–0.6 pounds per week in the second and third trimesters
  - Women in this category that are pregnant with multiples may gain 25–42 pounds

Weight gain during pregnancy is plotted on a chart in relation to the expected delivery date. Gaining weight within the recommendations helps keep mom and baby healthy and comfortable. Gaining weight below the recommended range in pregnancy will make it hard for the baby to grow properly. Gaining weight above the recommended range in pregnancy may result in complications during delivery and health concerns for both mothers and their babies later in life.

### **A Pregnancy Assessment Concerns**

#### **Ask:**

- “How do you feel about your changing weight since you’ve been pregnant?”
- “How much weight do you want to gain with this pregnancy?”
- “What has your doctor discussed with you about weight gain in pregnancy?”

#### **Assess:**

- Accuracy of self-reported pre-pregnancy weight
- Total weight gain based on pre-pregnancy weight
- Weight gain since last visit
- Healthcare provider recommendations regarding pregnancy weight gain

**Concern:**

- **Pre-pregnancy BMI less than 18.5** (WIC Code 101)

Women with a pre-pregnancy BMI of less than 18.5 who become pregnant are at a higher risk for delivery of low birth weight (LBW) infants, delayed fetal growth, and complications during delivery. This is also associated with a higher incidence of various pregnancy complications, such as hemorrhaging, premature rupture of membranes, anemia, endometriosis, and cesarean delivery. The goal of the prenatal nutritional counseling provided by WIC is to achieve recommended weight gain by emphasizing food choices of high nutritional quality, which may include encouraging increased consumption of some calorically-dense foods. Assess for pregnancy weight gain, healthcare provider directions specific to weight gain, and feelings about pregnancy weight gain and body changes.

- **Pre-pregnancy BMI greater than or equal to 25** (WIC Code 111)

Women with a pre-pregnancy BMI of greater than or equal to 25 may be at risk for higher rates of cesarean delivery, gestational diabetes mellitus, preeclampsia and other pregnancy-induced hypertensive disorders, as well as postpartum anemia. A BMI greater than or equal to 25 may also increase risk of chronic disease, including hypertension, dyslipidemia, diabetes mellitus, cholelithiasis, coronary heart disease, osteoarthritis, sleep apnea, stroke, and certain cancers. Prenatal nutritional counseling may include achieving recommended weight gain during pregnancy with emphasis on selecting food choices of high nutritional quality. Assess for pregnancy weight gain, healthcare provider directions specific to weight gain, and feelings about pregnancy weight gain and body changes.

- **Pregnancy weight gain below range** (WIC Code 131)

Maternal weight gain during the second and third trimesters is an important determinant of fetal growth. Low maternal weight gain is associated with an increased risk of small for gestational age (SGA) infants. In addition, low maternal weight gain may be associated with failure to initiate breastfeeding and possibly preterm birth. Assess for pregnancy weight gain, healthcare provider directions specific to weight gain, and feelings about pregnancy weight gain and body changes.

- **Maternal weight loss** (WIC Code 132)

Maternal weight loss during pregnancy is defined as any weight below the pre-pregnancy weight within the first trimester and any weight loss equal to or greater than two pounds within the second and third trimesters. Weight loss during pregnancy may indicate underlying nutrition or health practices or health or social conditions associated with poor pregnancy outcomes. Assess the accuracy of the pre-pregnancy weight reading, any healthcare provider directions specific to weight gain, and feelings about pregnancy weight gain and body changes.

- **Pregnancy weight gain above range** (WIC Code 133)

This includes pregnancy weight gain above range at any point in pregnancy, based on the weight gain grid provided by the Institute of Medicine (IOM), where a pregnant woman's weight plots at any point above the top line of the appropriate weight gain range for her respective pre-pregnancy weight category. This may include increased risk for cesarean delivery and delivering large for gestational age infants, which may also lead to complications during labor and delivery. The evidence is inconclusive whether pregnancy weight gain above range may be associated with glucose abnormalities and gestational hypertension disorders. Assess for pregnancy weight gain, any healthcare provider directions specific to weight gain, and feelings about pregnancy weight gain and body changes.

## Biochemical Assessment



In WIC, the biochemical or *B* in the ABCDE assessment includes the assessment and gathering of information related to specific blood tests. WIC screens for whether participants are at risk of anemia by measuring hemoglobin blood levels. WIC also screens for high blood lead concentrations by asking women if they have had their blood lead concentrations tested by their healthcare provider—and referring them back to their provider if they have not. Both anemia and lead exposure may impact the health of pregnant women and their growing babies. The biochemical assessment covers WIC codes in the 200s.

### Why Is This Important?

Iron deficiency is the most common cause of anemia. It may be caused by a diet low in iron, insufficient absorption of iron from a diet related to illness or a medical condition, or increased iron requirements due to pregnancy. The increase in maternal blood supply during pregnancy greatly increases the body's demand for iron, and with it increases the likelihood that anemia will develop. WIC screens for anemia because the risks associated with anemia in pregnancy are severe, and include infant mortality, premature birth, and low birth weight. Early identification of the risk of anemia in pregnancy by WIC is important not only for providing referrals back to the woman's healthcare provider, but also for implementing early nutrition interventions to ensure a healthy pregnancy for both mom and baby. Discussing lead screening with pregnant women and referring them back to their healthcare providers for screening, exposure, and risk assessment is another valuable resource WIC provides.

### B Pregnancy Assessment Considerations

Iron deficiency anemia is a condition that reduces the blood's ability to carry oxygen. Pregnant women need more iron than non-pregnant women. It is recommended that pregnant women consume 27 mg of iron per day. There are two kinds of nutritional iron: heme iron is found in animal products, especially red meat, and is easily absorbed into the body. Non-heme iron is much less easily absorbed and is found in plant foods such as dried beans and peas; fortified breads and cereals; dark green leafy vegetables, and tofu. Foods that have vitamin C such as bell peppers, broccoli, spaghetti sauce, and citrus fruits and juices help the body absorb iron and can be eaten with iron-rich foods to increase the amount of iron that is absorbed. Iron deficiency weakens the body's defense against lead absorption, while lead poisoning can cause iron deficiency. Both lead toxicity and iron deficiency may impact both pregnant women and their growing babies. Women considered at risk are those living in houses built before 1978 (the year that regulations began requiring that lead-containing paints could

not be used in households) or those living in older homes (built before 1970) with lead-based pipes. Other pregnant women that may be at high risk are those who immigrated to the United States from foreign countries that do not regulate the use of lead, those using imported bowls glazed with lead-based paint, pregnant women with pica, or those using traditional folk remedies such as *greta* (powdered lead oxide) or *azarcon* (lead tetroxide).

## **B Pregnancy assessment concerns**

### **Ask:**

- “What has your doctor said about your iron and lead levels?”
- “What concerns did you have about anemia or lead pre-pregnancy?”
- “What have you heard about iron and lead testing?”

### **Assess:**

- Accuracy of value, repeat the test if needed
- Check for current use of prenatal vitamins or supplements containing iron
- Exposure to lead-based paint, pipes, pottery/bowls, or folk remedies

### **Concern:**

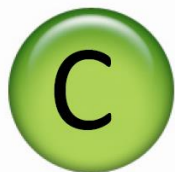
- **Low hemoglobin/low hematocrit** (WIC Code 201)

Hemoglobin (Hgb) and hematocrit (Hct) are the most commonly used tests to screen for iron deficiency anemia. Measurements of hemoglobin and hematocrit reflect the amount of functional iron in the body. While neither test can directly measure iron status or distinguish between different types of anemia, these tests are useful indicators of iron deficiency anemia. The indicator for low hemoglobin or hematocrit in pregnant women (without adjusting for altitude) is a hemoglobin level of less than 11.0 or a hematocrit level of less than 33.0. Assess for anemia and iron supplements.

- **High blood lead levels** (WIC Code 211)

Elevated lead levels are anything equal to or greater than 10 µg/deciliter within the past 12 months. Blood lead screenings may not be routine by all healthcare providers. Assess for lead poisoning diagnosis, environmental exposure, or recent move from another country.

## Clinical Assessment (Medical Conditions)



The clinical assessment or C section of the ABCDE assessment in the nutrition care process is the assessment of clinical or medical conditions that impact nutrition status. Pregnant women may report a diagnosed medical condition that was a concern pre-pregnancy, or a new concern that has arisen since becoming pregnant. Medical documentation from a healthcare provider is generally not needed to assign a WIC code. Understanding the impact of nutrition on a growing baby can be complicated. In pregnant women, the impacts may include anything from gestational diabetes to a genetic disease. The clinical assessment covers WIC codes in the 300s. The Arizona WIC Nutrition Care Guidelines serve only to provide a general overview of C assessment guidelines, and do not include comprehensive details of nutrition care guidelines specific to each individual condition. To find more details about each condition, refer to the Nutrition Risk Manual.

### Why is this important?

A basic understanding of medical conditions is important to determine how a medical condition affects a pregnant woman's nutrition status and eating patterns.

### C Pregnancy assessment considerations

Questions and conversations that surface as a result of gathering the C information in the assessment may be sensitive or challenging to navigate. The issues discussed can include a broad range of conditions requiring healthcare and related services beyond basic, routine care. It is important to understand how the clinical or medical condition will affect nutritional needs and how to make appropriate referrals when necessary. The effect on nutritional needs may include inadequate energy and nutrient intake to support health, medication-nutrient interactions, need for enteral (tube) feedings, chronic constipation or diarrhea, and use of alternative or complementary therapies or products. The identification of these clinical and medical codes through the WIC assessment process may require an evaluation by the WIC registered dietitian (RD).

### C Pregnancy assessment concerns

#### Ask:

- “What has the doctor said about your health?”
- “What concerns do you have about your health in this pregnancy?”
- “What has your dentist said about your oral/dental health?”
- “How often do you feel down, depressed or hopeless?”
- “How often do you have little interest or pleasure in doing things?”

If the client mentions a diagnosis, further probing questions include:

- “What has your doctor told you about how your condition may impact your pregnancy?”
- “How does this condition impact your nutrition or eating?”
- “What special instructions have you been given during pregnancy?”

### **Assess:**

- The impact of the medical condition on pregnancy and the woman’s health
- Frequency of prenatal visits and care
- Coping strategies

### **Concern:**

- **Hyperemesis gravidarum** (WIC Code 301)

Hyperemesis gravidarum is defined as severe nausea and vomiting to the extent that the pregnant woman becomes dehydrated and shows an increase in blood acidity levels. Other symptoms may include weight loss in pregnancy. The absolute cause is unknown. The most severe cases may require hospitalization with intravenous fluid and nutrition therapy. This may be distinguished from morning sickness in that vomiting is so severe that it does not allow the woman to keep anything down. Assess degree of nausea and vomiting, recommendations/directions provided by the healthcare provider, and overall health.

- **Gestational diabetes** (WIC Code 302)

Gestational diabetes mellitus (GDM) is defined as any degree of glucose or carbohydrate intolerance with the onset or first recognition during pregnancy. Pregnancy is an insulin-resistant state. Deterioration of glucose tolerance occurs normally during pregnancy, particularly in the third trimester. Untreated or poorly treated GDM results in a higher risk of morbidity and mortality for both the mother and the fetus. Established risk factors for GDM include advanced maternal age, obesity, and family history of diabetes. Assess recommendations/directions provided by the healthcare provider, history of GDM and DM, and overall health.



- **History of gestational diabetes** (WIC Code 303)

Women who have had a pregnancy complicated by GDM are 40–60% more likely to develop diabetes within 15–20 years, usually type 2. This risk of subsequent diabetes is greatest in women with GDM who are diagnosed early in the pregnancy, who exhibit the highest rates of hyperglycemia during the pregnancy, and who are obese. Approximately 30–50% of women with a history of GDM will develop GDM in a subsequent pregnancy. Assess any recommendations or directions provided by the healthcare provider, history of GDM and DM, and overall health.

- **History of preeclampsia** (WIC Code 304)

Preeclampsia is defined as pregnancy-induced hypertension (> 140mm Hg systolic or 90mm Hg diastolic blood pressure) with proteinuria developing usually after the 20th week of gestation. Symptoms of preeclampsia may include edema (swelling) and renal (kidney) failure. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and overall health.

- **History of premature delivery** (WIC Code 311)

History of preterm delivery is defined as the birth of an infant at  $\leq 37$  weeks gestation. Preterm birth causes at least 75% of neonatal deaths not due to congenital malformations. In most cases of preterm labor, the cause is unknown. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **History of low birth weight** (WIC Code 312)

History of low birth weight is defined as the birth of an infant weighing  $\leq 5$  lb. 8 oz. ( $\leq 2500$  grams). A pregnant woman's weight gain is one of the most important metrics associated with infant birth weight. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **History of fetal or neonatal loss** (WIC Code 321)

Adverse outcomes related to history of fetal loss may include recurrent loss in future pregnancies, low birth weight (including preterm and small for gestational age infants), premature rupture of membranes, neural tube

defects, and major congenital malformations. Important vitamins, minerals, and nutrients to support healthy outcomes in pregnancy include sufficient energy or calories, protein, folate, zinc, and vitamin A. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Pregnancy at a young age** (WIC Code 331)

Pregnancy at a young age is defined as conception at equal to or less than 17 years of age. Pregnancy at a young age, before a woman's growth is complete, constitutes a nutritional risk because of the potential for competition for nutrients between the needs of the pregnancy and the woman's body. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Closely spaced pregnancies** (WIC Code 332)

Closely spaced pregnancies are defined as conception before 16 months postpartum. Pregnancy requires an adjustment of the mother's body to a new state which results in rapid depletion of maternal stores of certain nutrients. Mothers with closely spaced pregnancies may not have sufficient time to recover from the nutritional deprivations caused by the previous pregnancy. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **High parity (number of pregnancies) and young age** (WIC Code 333)

This is defined as women—under age 20 at date of conception—who have had 3 or more previous pregnancies of at least 20 weeks duration. This may increase the risk of delivery of low birth weight infants in future pregnancies. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Inadequate prenatal care** (WIC Code 334)

This includes prenatal care beginning after the first trimester (or after the thirteenth week) of pregnancy. Women who do not receive early and adequate prenatal care are more likely to deliver premature or low birth weight infants. Assess social support system, potential barriers preventing regular prenatal care, and for overall health.

- **Multi-fetal gestation (WIC Code 335)**

Multi-fetal gestation includes more than one fetus in a current pregnancy. Multi-fetal pregnancies may be associated with low birth weight, fetal growth restriction, placental and cord abnormalities, preeclampsia, anemia, shorter gestation, and an increased risk of infant mortality. The risk of pregnancy complications is greater in women carrying twins and increases as the number of fetuses increases. Pregnant women with twins have greater requirements for all nutrients than women with only one fetus. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Delayed uterine growth (WIC Code 336)**

This includes a fetal weight lower than the tenth percentile for gestational age. Severely growth-restricted infants are at increased risk of fetal and neonatal death, hypoglycemia, polycythemia, cerebral palsy, anemia, bone disease, birth asphyxia, and long-term neurocognitive complications. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **History of large for gestational age (LGA) (WIC Code 337)**

This includes any history of giving birth to an infant weighing greater than or equal to 9 pounds (4000 grams); it is also known as macrosomia. Women with a history of LGA infants are at an increased risk of giving birth to an LGA infant in future pregnancies. Macrosomia may be an indicator of maternal diabetes (current or gestational) or a predictor of future diabetes. LGA infants may also be at risk for injury during birth. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Pregnant woman breastfeeding (WIC Code 338)**

Breastfeeding during pregnancy can influence a woman's ability to meet the nutritional needs of both her growing fetus and her nursing baby. Pregnancy may also impact the volume and composition of a breastfeeding woman's milk supply. When women nurse through a pregnancy, it is possible for oxytocin released during breastfeeding to trigger uterine contractions resulting in premature labor. Assess lactation support, any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **History of birth with a congenital defect** (WIC Code 339)

This includes a woman who has given birth to an infant who has a congenital or birth defect linked to inadequate nutritional intake, including inadequate zinc, folic acid, or excess vitamin A. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Nutrient deficiency disease** (WIC Code 341)

This is a diagnosis given by a healthcare provider that includes nutritional deficiencies or a disease caused by insufficient dietary intake of specific nutrients. Diseases include, but are not limited to, protein-energy malnutrition, scurvy, rickets, beriberi, hypocalcemia, osteomalacia, vitamin K deficiency, pellagra, cheilosis, Menkes disease, and xerophthalmia. Persistent deficiency may lead to growth problems or malnutrition. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Gastrointestinal disorders** (WIC Code 342)

This is a diagnosis given by a healthcare provider that includes any gastrointestinal (GI) condition that interferes with the intake or absorption of nutrients. Disorders may include gastroesophageal reflux disease (GERD), stomach or intestinal ulcers, short bowel syndrome, inflammatory bowel disease (including colitis or Crohn's disease), pancreatitis, gallbladder disease, or malabsorption disorders. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Diabetes mellitus** (WIC Code 343)

This is a diagnosis given by a healthcare provider that includes a group of metabolic diseases that results in hyperglycemia (elevated blood sugar) resulting from defects in insulin secretion, insulin action, or both. The two major classifications of diabetes are type 1 diabetes (insulin deficiency) and type 2 diabetes (insulin resistance). Diabetes is identified by a fasting plasma glucose level greater than 126 mg/dL. Hyperglycemia is defined as equal to or greater than 200 mg/dL. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Thyroid disorders** (WIC Code 344)

This is a diagnosis given by a healthcare provider that includes abnormal secretions of thyroid hormones. Types of disorders may include hyperthyroidism, hypothyroidism, congenital (present from birth)

hyperthyroidism, and congenital hypothyroidism. Thyroid hormones influence all organ systems in the body and regulate how the body gets energy from food. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Hypertension and pre-hypertension** (WIC Code 345)

(Commonly referred to as high blood pressure) Hypertension is the most common medical complication of pregnancy. Hypertension during pregnancy may lead to low birth weight, fetal growth restriction, and premature delivery. Hypertensive disorders of pregnancy are categorized as follows:

- **Chronic hypertension:** Hypertension that was present before pregnancy. Women with chronic hypertension are at risk for complications of pregnancy such as preeclampsia.
- **Preeclampsia:** A pregnancy-specific syndrome observed after the 20th week of pregnancy, characterized by elevated blood pressure accompanied by significant proteinuria.
- **Eclampsia:** The occurrence of seizures in a woman with preeclampsia that cannot be attributed to other causes.
- **Preeclampsia superimposed upon chronic hypertension:** Preeclampsia occurring in a woman with chronic hypertension.
- **Gestational hypertension:** Blood pressure elevation detected for the first time after mid-pregnancy without proteinuria. It presents minimal risks to mother and baby when it does not progress to preeclampsia.

Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Renal disease** (WIC Code 346)

Renal means “of or relating to the kidney.” This is a diagnosis given by a healthcare provider that may include pyelonephritis and persistent proteinuria, but excludes urinary tract infections (UTI) involving the bladder. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Cancer** (WIC Code 347)

This is a diagnosis given by a healthcare provider that may include any type of cancer. Cancer is a disease caused by the uncontrolled division of abnormal cells in a part of the body. The type of cancer and stage of disease progression determines the type of medical treatment, and, if indicated, nutrition management. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Central nervous system disorders** (WIC Code 348)

The central nervous system (CNS) comprises the brain and spinal cord and is a network of nerve tissues that control the activities of the body. CNS disorders include a broad category covering many diagnoses given by a healthcare provider that may impact the amount of calories an individual needs, their ability to feed, oral dysfunction, and growth. One common CNS disorder is seizures, or epilepsy. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Genetic and congenital disorders** (WIC Code 349)

This is a broad category covering many diagnoses given by a healthcare provider that may include hereditary or congenital conditions, present from birth, that cause physical or metabolic abnormalities. They may include, but are not limited to, cleft lip or palate, Down syndrome, thalassemia major, sickle cell anemia (not sickle cell trait), and muscular dystrophy. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Inborn errors of metabolism** (WIC Code 351)

This is a diagnosis given by a healthcare provider that generally refers to gene mutations or gene deletions that alter the metabolism in the body. The inheritance of most metabolic disorders is rare. IEM disorders may manifest at any stage of life, from infancy to adulthood. In most cases, when nutritional interventions are screened, identified, and initiated early and continued for a lifetime, the participant may have normal growth. Several medical foods designed for the specific treatment of the identified disorder can be made available through the participant's health insurance plan, or their AHCCCS plan, or by prescription through WIC. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Infectious diseases** (WIC Code 352)

This is a diagnosis given by a healthcare provider that includes diseases caused by growth of pathogenic microorganisms in the body that are severe enough to affect nutritional status. Infectious diseases typically increase the nutrient needs of the body. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Food allergies** (WIC Code 353)

Food allergy reactions occur when the body's immune system responds to a harmless food as if it were a threat. The foods that most often cause allergic reactions are called allergens and may include cow's milk (and foods made from cow's milk), eggs, peanuts, tree nuts (walnuts, almonds, cashews, hazelnuts, pecans, Brazil nuts), fish, shellfish (e.g., shrimp, crayfish, lobster, and crab), wheat, and soy. Assess for specific food allergens, severity of reaction, management of allergy, recommendations or directions provided by the healthcare provider, and for overall health.

- **Celiac disease** (WIC Code 354)

Celiac disease (CD) is a diagnosis given by a healthcare provider of an autoimmune disease in which eating gluten (a protein occurring in wheat, rye, and barley) results in damage to the small intestine and malabsorption of nutrients from food. Celiac disease can result in a wide range and severity of symptoms. Symptoms may include chronic diarrhea, vomiting, constipation, pale foul-smelling fatty stools, and weight loss. The vitamin and mineral deficiencies that can occur from continued exposure to gluten may result in conditions such as anemia, osteoporosis, and neurological disorders such as ataxia, seizures, and neuropathy. Treatment includes strict management in following a gluten-free diet. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and overall health.

- **Lactose intolerance** (WIC Code 355)

Lactose is a sugar present in milk. Lactose intolerance is an inability to digest this sugar stemming from the body's inability to produce sufficient amounts of the enzyme lactase. Symptoms include diarrhea, abdominal pain, flatulence, or bloating occurring after lactose ingestion. Assess any recommendations or directions provided by the healthcare provider and for overall health.

- **Hypoglycemia** (WIC Code 356)

Hypoglycemia is blood glucose below 54 mg/dL. Hypoglycemia may result as a complication of diabetes, as a condition in itself, in association with other disorders, or under certain conditions such as prolonged fasting or long periods of strenuous exercise. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Eating disorders** (WIC Code 358)

Eating disorders (such as anorexia nervosa and bulimia), may include a distorted sense of body image and morbid fear of becoming fat. Symptoms may include abnormal eating patterns (including but not limited to self-induced vomiting, purging, and periods of starvation), use of drugs such as appetite suppressants, thyroid preparations or diuretics, and self-induced marked weight loss. Anorexia nervosa and bulimia are serious eating disorders that affect women in their childbearing years.

These disorders result in general malnutrition and may cause life-threatening fluid and electrolyte imbalances. Women with eating disorders may begin pregnancy in a poor nutritional state. They are at risk of developing chemical and nutritional imbalances, deficiencies, or weight gain abnormalities during pregnancy if disordered eating behaviors are not controlled. These eating disorders may complicate any pregnancy because the nutritional status of pregnant women is an important factor in perinatal outcomes. Assess feelings about changing body in pregnancy, overall mental and physical health, and support system. Be mindful of how any assessment questions relating to pregnancy weight gain may impact struggles in managing disordered eating.

- **Recent surgery, trauma, burns** (WIC Code 359)

This includes major surgery (including C-sections), trauma, or burns severe enough to compromise nutritional status that have occurred within the past two months, or similar injury more than two months previous that requires continued nutritional support. The body's response to recent major surgery, trauma, or burns may affect the nutrient requirements needed for recovery and lead to malnutrition. There is a catabolic response to surgery; severe trauma or burns cause a hyper metabolic state. Injury causes alterations in glucose, protein, and fat metabolism. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Other medical conditions** (WIC Code 360)

These include diseases or conditions with nutritional implications that are not included in any of the other medical conditions. The current condition, or treatment for the condition, must be severe enough to affect nutritional status. This includes, but is not limited to: arthritis, lupus, heart disease, cystic fibrosis, and asthma. Assess any recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.



- **Depression** (WIC Code 361)

This may include the presence of clinical depression, including postpartum depression. Average onset is around age 30. Depression occurs twice as frequently in women as in men. Depression has a variety of symptoms, but the most common are deep feelings of sadness or a marked loss of interest in pleasurable activities. Other symptoms of depression may include appetite changes resulting in unintended weight losses or gains; insomnia or oversleeping; loss of energy or increased fatigue; restlessness or irritability; feelings of worthlessness or inappropriate guilt; and difficulty thinking, concentrating, or making decisions. Depression is common during pregnancy. Several studies have found that depression risk is highest during the last trimester of pregnancy. Women who experience depression during pregnancy may be less likely to seek prenatal care. They may also suffer from episodes of nausea or vomiting and may initiate or increase the use of drugs, alcohol and nicotine. Pregnant women with depression may be at risk for preeclampsia, preterm delivery, or delivery of low birth weight infants, and have higher perinatal mortality rates. Assess for social support, medication use; recommendations or directions provided by the healthcare provider, frequency of prenatal visits; and overall health.

- **Developmental delays, sensory or motor delays interfering with the ability to eat** (WIC Code 362)

A developmental disability is defined as a severe chronic disability that is the result of a mental or physical impairment or combination of mental and physical impairments. This includes developmental, sensory, or motor disabilities that restrict the ability to intake, chew, or swallow food or require tube feeding to meet nutritional needs. Developmental disabilities affect individuals of all ages and are not a disease state. They are conditions caused by abnormalities, birth defects, and metabolic and chromosomal disorders. There is not one single nutrition intervention that will work for all individuals. Many multidisciplinary teams use a range of treatments and nutrition interventions. Assess increased sensory sensitivity, how the medical condition impacts the woman's health overall, and how the medical condition is being managed.

- **Maternal smoking** (WIC Code 371)

This includes any smoking of tobacco products, (i.e., cigarettes, pipes, or cigars). Smoking during pregnancy causes health problems and other adverse consequences for the mother, the unborn fetus, and the newborn

infant, including pregnancy complications, premature birth, low birth-weight, stillbirth, infant death, and increased risk for Sudden Infant Death Syndrome (SIDS). Women who smoke are at risk for chronic and degenerative diseases such as cancer, cardiovascular disease, and chronic obstructive pulmonary disease (COPD). They are also at risk for loss of bone density. Because smoking increases oxidative stress and metabolic turnover of vitamin C, the requirement for this vitamin is higher for women who smoke. Assess smoking cessation efforts, recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Alcohol and illegal drug use (WIC Code 372)**

For pregnant women, this includes any alcohol use and/or any illegal drug use. Drinking alcoholic beverages during pregnancy can damage the developing fetus. Excessive alcohol consumption may result in low birth weight, reduced growth rate, birth defects, and mental retardation. Fetal alcohol syndrome (FAS) is a name given to a condition sometimes seen in children of mothers who drink heavily during pregnancy, and it is characterized by a specific pattern of physical, mental, and behavioral abnormalities. Since there is no cure, prevention is the only answer. The exact amount of alcohol pregnant women may drink without risk to the developing fetus is not known, nor is the risk from periodic bouts of moderate or heavy drinking. Alcohol has the potential to damage the fetus at every stage of the pregnancy. Therefore, the recommendation is not to drink any alcoholic beverages during pregnancy. Assess for frequency of alcohol consumption and/or illegal drug use, access to and use of social support services, recommendations or directions provided by the healthcare provider, frequency of prenatal visits, and for overall health.

- **Oral health conditions (WIC Code 381)**

Maternal periodontal disease and dental caries may impact pregnancy outcomes, including increasing a woman's risk of atherosclerosis, rheumatoid arthritis, and diabetes. Women may experience dental problems for a variety of reasons, including lack of resources to pay for dental care, barriers to access to dental care, and lack of understanding of the importance of oral health and effective self-care practices. Assess frequency of oral care at home, access to dental care services and frequency of visits to the dentist, and for overall health.

## Dietary Assessment



The dietary assessment, or *D* section of the ABCDE assessment in the nutrition care process, is the assessment of dietary or food specific information. The dietary assessment covers WIC codes in the 400s.

### Why Is This Important?

A pregnant woman's food choices support her own health as well as her infant's growth and development. Nutritional needs during pregnancy are higher than they were before she was pregnant. The growth of the baby demands additional nutrients, including additional energy or calories. The food choices a pregnant woman makes impact not only herself but also the health of her baby. For this reason, it is recommended that pregnant women avoid certain foods that could be harmful, such as those that may be toxic or cause food poisoning, including certain raw foods or high mercury fish. The supplemental foods provided through WIC can help support the additional needs to nourish both mothers and their babies.

### *D* Pregnancy Assessment Considerations

During pregnancy, WIC can optimize health outcomes by supporting a healthy environment for mothers and their babies through the proper balance of nutrients and avoidance of cigarettes, alcohol, and drugs that could negatively affect the development of the fetus. There are no additional caloric needs for pregnant women during the first trimester, but beginning in the second trimester a pregnant woman needs an additional 340 calories per day, rising to an additional 450 calories per day in the third trimester. It is recommended for most pregnant women to supplement a healthy diet with prenatal vitamin and mineral supplements, taken every day.

### Foods to Avoid or Limit During Pregnancy

- **Alcohol.** Use of alcohol during pregnancy has been associated with increased rates of spontaneous abortion, placenta abruption, low birth weight babies, mental abnormalities, and cognitive compromise. Alcohol is never recommended, even in small amounts, during pregnancy.
- **Unpasteurized soft cheeses.** Soft cheeses made from unpasteurized milk, such as brie, feta, *queso blanco*, and *queso fresco* should be avoided as they may contain *E. coli* or *Listeria* pathogens. Pregnant women are 20 times more likely to become infected with *Listeria* than other healthy adults; while *Listeria* infection in non-pregnant women may only cause abdominal discomfort, in pregnant women the infection may cause harm to the fetus. When made from pasteurized milk, most soft

cheeses are considered safe to eat during pregnancy. Many of the soft cheeses made in the United States are made from pasteurized milk, but pregnant women should be encouraged to check the label.

- **Raw or undercooked meat, poultry, and seafood.** Raw or undercooked meat, poultry, and seafood may contain bacteria that may cause illness to pregnant women and harm the fetus and should be avoided during pregnancy.
- **Raw milk.** Unpasteurized, or raw, milk may contain bacteria that can cause illness to pregnant women and harm the fetus and should be avoided during pregnancy.
- **Cold cuts.** Cold cuts may also contain Listeria bacteria that cause illness to pregnant women and harm the fetus and should be avoided during pregnancy.
- **High mercury-containing seafood.** Some seafood may contain unhealthy chemicals such as mercury. Mercury can harm the developing nervous system in an unborn child or young baby. Levels of mercury in seafood vary, but are highest in shark, mackerel, tilefish, tuna, and swordfish. It is important that pregnant women avoid high mercury fish. However, low mercury fish including shrimp, crab, salmon, tilapia, trout, cod, canned light tuna and catfish can be encouraged. Canned “white” tuna (albacore) is higher in mercury than the “light” variety, and should be limited to less than 6 ounces per week
- **Caffeine.** The American College of Obstetricians and Gynecologists (ACOG) advises pregnant women limit caffeine consumption to no more than 200 mg/day, the approximate amount in one 12-ounce cup of coffee, about 3–4 cups of black tea or iced tea, or approximately 3-4 12-ounce cans of soda.

### **D Pregnancy assessment**

The WIC program plays a key role in the prevention of nutrition-related health problems and the promotion of lifelong healthy eating habits. Education specific to the needs and interests of the participant may be offered after the completion of the full ABCDE assessment.

#### **Ask:**

- “What has the doctor told you about the need for vitamins/supplements/herbs during pregnancy?”
- “What concerns do you have about your nutrition during your pregnancy?”

- “Tell me about any cultural traditions or recommendations from friends and family you follow regarding your nutrition and care during pregnancy.”

### **Assess:**

- Prenatal vitamin use
- Types of foods and beverages consumed
- How foods are being prepared
- Food preferences
- Food allergies (See C Section WIC Code 353)
- Food intolerances (See C Section WIC Code 353)
- Cultural and/or religious eating practices
- Food access and availability
- Activity levels

### **Concern:**

- **Consuming dietary supplements with potentially harmful consequences** (WIC Code 427.1)

Women taking inappropriate or excessive amounts of dietary supplements, such as single vitamins or multivitamins or minerals, or botanical (including herbal) remedies or teas, are at risk for adverse effects such as harmful nutrient interactions. Most nutrient toxicities occur through excessive supplementation of particular nutrients, such as vitamins A, B6 and niacin, iron, and selenium. Besides nutrient toxicities, nutrient–nutrient and drug–nutrient interactions may adversely affect health. Many herbal and botanical remedies have cultural significance related to beliefs about pregnancy and breastfeeding. Herbal supplements such as blue cohosh and pennyroyal stimulate uterine contractions, which may increase the risk of miscarriage or premature labor. Assess dietary intake and supplement use, type, and frequency.

- **Consuming a diet very low in calories and/or essential nutrients** (WIC Code 427.2)

Women consuming highly restrictive diets are at risk for primary nutrient deficiencies, especially during critical developmental periods such as pregnancy. Pregnant women who restrict their diets may increase the risk of birth defects, suboptimal fetal development, and chronic health problems in their children. Low calorie intake during pregnancy may lead to inadequate prenatal weight gain, which is associated with infant intrauterine growth restriction (IUGR). Strict vegan diets may be highly restrictive and result in nutrient deficiencies. Nutrients of potential concern that may require supplementation are iron, riboflavin, zinc, vitamin B12, vitamin D, calcium, and selenium. Assess reasons for restrictive diet, excluded foods, and cultural or religious eating practices.

- **Compulsively ingesting non-food items (pica) (WIC Code 427.3)**

Pica, or eating non-food items, may lead to lead poisoning and exposure to other toxins, anemia, displacement of nutrients, gastric and small bowel obstruction, or infection. It may also contribute to nutrient deficiencies, either by inhibiting absorption or by displacing nutrient-dense foods in the diet. Poor pregnancy outcomes associated with pica-induced lead poisoning include lower maternal hemoglobin level at delivery and a smaller head circumference in the infant. Assess types of non-food items eaten, frequency of eating non-food items, and what has been tried to address the concern that has or has not worked.

- **Inadequate vitamin/mineral supplementation recognized as essential by national public health policy (WIC Code 427.4)**

The Recommended Dietary Allowance (RDA) for pregnant women is 27 mg of iron per day. Iron supplementation is recommended for all pregnant women to prevent iron deficiency. The RDA for iodine during pregnancy is 220 µg. Severe iodine deficiency during pregnancy may impact cognitive development in children. Pregnant women should take a prenatal vitamin that contains 150 µg of iodine. It is also recommended that all women of childbearing age consume 400 µg of folic acid per day. Assess use of prenatal vitamins or other multivitamins and dietary patterns.

- **Pregnant women ingesting foods that could be contaminated with pathogenic microorganisms (WIC Code 427.5)**

Pregnant women are at greater risk for foodborne illness than non-pregnant women. Foodborne illness is caused by pathogenic microorganisms (bacteria, viruses, and parasites) and their toxins and chemical contamination. The symptoms are usually gastrointestinal in nature and may include vomiting, diarrhea, and abdominal pain. Foods that could be potentially contaminated include milk (Campylobacter), shellfish (Norwalk-type viruses), unpasteurized apple cider (E. coli), eggs (Salmonella), fish (ciguatera toxins), raspberries (Cyclospora), strawberries (Hepatitis A virus), and ready-to-eat meats (Listeria monocytogenes). Listeria monocytogenes can cause an illness called listeriosis. Listeriosis during pregnancy may result in premature delivery, miscarriage, fetal death, and severe illness or death of a newborn from the infection. Listeriosis may be transmitted to the fetus through the placenta even if the mother is not showing signs of illness. Assess dietary patterns, food preparation methods, and cultural eating patterns.

## Other Concerns for Pregnant Women

### Food cravings and aversions

Some reasons for food avoidance during pregnancy may include smell aversion caused by enhanced perception of aromas, a heightened gag response, getting ill while eating or smelling a particular food, or altered gastric comfort. Cravings and aversions are powerful urges toward or away from foods, including foods that would not normally elicit any unusual reaction when the woman is not pregnant. Some pregnant women find relief from nausea during pregnancy by temporarily avoiding certain foods that trigger a reaction.

### Constipation and hemorrhoids

Pregnant women can become constipated if they fail to drink adequate water and eat recommended amounts of fiber. Women who are treated with Ondansetron (Zofran) for nausea and vomiting may also experience severe constipation. Associated straining during stooling increases the risk for hemorrhoids. Increased consumption of fluids and fiber-rich foods, including dried fruits and nuts, can usually control these concerns.

### Heartburn

Gastric esophageal reflux is common during the second and third trimesters of pregnancy, and it often occurs at night. Relief may occur by suggesting that the pregnant woman eat small frequent meals and stay upright for at least three hours after a meal.

### Nausea and vomiting (“morning sickness”)

Nausea and vomiting in pregnancy, also known as morning sickness, affects 50% to 90% of all pregnant women during the first trimester and usually resolves at approximately 17 weeks gestation. Small, frequent snacks of carbohydrate foods may reduce nausea for some, whereas protein food sources may help others. Ginger may also reduce symptoms, and studies indicate that ginger is better at reducing symptoms of nausea and vomiting in pregnancy than vitamin B6. Nausea and vomiting in pregnancy should not be confused with the more severe hyperemesis gravidarum (See WIC Code 301).

### Physical activity during pregnancy

Physical activity is safe for generally healthy women during pregnancy. It increases cardiorespiratory fitness without increasing the risk of early pregnancy loss, preterm delivery, or low birth weight. It is recommended that healthy women try to get at least 150 minutes of physical activity a week during pregnancy and the postpartum period. This is equal to 30 minutes per day and may be broken up into smaller 10-minute periods of activity, such as short walks. It is also recommended that pregnant women avoid doing activities that involve lying on

their backs after the first trimester of pregnancy and avoid doing activities with high risk of falling or abdominal trauma, including contact or collision sports, such as horseback riding, soccer, basketball, and downhill skiing. Encourage pregnant women to talk to their healthcare providers about the amount and type of physical activity that is right for them.

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## Environmental Assessment (Including Other Social and Safety Factors)



The environmental assessment, or *E* section of the ABCDE assessment, includes assessing environmental, social, and safety factors that influence nutritional status. The common environmental factors assessed in WIC that impact women include smoking, abuse, and substance abuse. This covers WIC codes in the 900s.

### Why Is This Important?

Environmental factors directly impact health and well-being. Referrals and follow ups are important opportunities to motivate and empower women with options to explore.

### *E* Pregnancy assessment considerations

Information gathered from the *E* assessment can sometimes include sensitive topics that are challenging to address. Women are best supported when WIC avoids associations with shame or blame, and makes women feel safe to share. Based on different women's motivations and interests, WIC may provide key connections to community resources and programs.

### *E* Pregnancy assessment concerns

#### Ask:

- “What concerns do you have about feeling safe in your relationship?”
- “What are your thoughts about smoking in your home?”
- “What concerns do you have about alcohol or drug use?”

#### Assess:

- Safety concerns
- Foster status
- Tobacco use in the home
- Access to community services

#### Concern:

- **Recipient of abuse** (WIC Code 901)

The CDC reports that intimate partner violence or abuse during pregnancy may be a more common problem than conditions for which pregnant women are routinely screened. Studies have shown associations between intimate partner violence and unintended pregnancy, delayed prenatal care, and behavioral risk factors such as smoking and alcohol and drug abuse. Abuse during pregnancy is associated with poor nutrition and health behaviors as

well as increased risks of low birth weight and pre-term delivery. Abused women are more likely to experience low maternal weight gain and anemia, consume an unhealthy diet, and abuse drugs, alcohol, and cigarettes. Women may be reluctant to share this information, rather they would benefit from safety and discretion in sharing community support and referral services. Assess woman's safety and access to community services.

- **Woman or infant/child of primary caregiver with limited ability** (WIC Code 902)

This may include women who are younger moms (17 years of age or younger), women who are mentally disabled or delayed and/or have a mental illness such as diagnosed depression, are physically disabled to a degree which restricts or limits food preparation abilities, or are currently using—or having a history of abusing—alcohol or other drugs. Assess support system for woman and access to community services.

- **Foster care** (WIC Code 903)

Foster care children have higher rates of chronic conditions such as asthma, diabetes, and seizure disorders. They are also more likely than children in the general population to have birth defects, inadequate nutrition, and growth retardation including short stature. This may be the result of abuse or neglect prior to entry into the foster care system and/or a frequency of moves between foster homes. For example, the foster caregiver accompanying a foster child to a WIC clinic for a first-time certification may have no knowledge of the child's eating patterns, special dietary needs, chronic illnesses, or other factors. Without any anthropometric history, failure to grow—often a problem for foster children—may not be diagnosed. The nutrition education, referrals, and service coordination provided by WIC can support the foster parent in developing the skills and knowledge to ensure that the foster child receives appropriate nutrition and healthcare. A foster parent may have inadequate information about a new foster child's health needs; therefore, through the ABCDE assessment, WIC can alert foster parents to the nutritional risks that many foster care children have and suggest ways to improve the child's nutritional status. Code 903 will be automatically assigned by HANDS (the Arizona WIC computer system) based on the information provided on the certification screen. Assess linkages to community services.

- **Exposure to environmental tobacco smoke (WIC Code 904)**

WIC defines the environmental tobacco smoke (ETS) code as exposure to smoke from tobacco products inside the home. This includes risk of cancer, specifically lung cancer, and cardiovascular diseases. There is strong evidence that ETS exposure to the fetus results in permanent lung damage. Assess smoking inside the home and utilization of ASHLine cessation and referral services.

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## Education for Pregnant Women

Education may be offered after the completion of a complete ABCDE assessment and is based on a woman's identified concerns, interests, and motivation. Education for pregnant women may emphasize:

- MyPlate Pregnancy Guidelines
- Breastfeeding Preparation Anticipatory Guidance
- Emphasize health and wellbeing rather than just a focus on weight and weight gain
- Physical activity recommendations

### **A Anthropometric WIC Code Education:**

Education specific to concerns identified during the *A* assessment may include:

#### **A Education messages:**

- "Pregnancy is a time of important growth for both yourself and your baby. When you gain weight within the recommended range, that weight is distributed to the growing baby, the uterus, placenta, blood and body fluids. When weight gain exceeds the recommended range, it can mean more of the weight is being stored on mom's body."
- "Sometimes it is challenging to meet weight gain recommendations during pregnancy due to things like appetite, nausea, or just being tired. Eating a healthy variety of foods during pregnancy can continue to support healthy growth for you and your baby until you are able to overcome some of these common concerns in pregnancy."

### **B Biochemical (Blood Work) WIC Code Education:**

Education specific to concerns identified during the *B* assessment may include:

#### **B Education messages related to blood work:**

- "Hemoglobin is related to the amount of iron in the body. The amount of iron you get from foods affects your hemoglobin blood levels. Low iron can cause you to feel tired and can affect your growing baby."
- "Prenatal vitamins contain iron, but it is also important to get iron from foods."
- "You can increase the amount of iron in your diet by eating meat, fish, poultry, beans, iron-fortified cereals and whole grains provided through WIC."
- "Adding vitamin C-rich foods to high iron foods can help increase the absorption of iron from foods."

- “Homes built before 1978 may have lead-based paint. Other lead sources can be soil, toys (depending on where they were made), imported ceramics or old pottery, and imported folk medicines.”

### **C Clinical (Medical Conditions) WIC Code Education:**

Education specific to concerns identified during the *C* assessment may include:

#### **C Referral messages for medical conditions:**

- “How do you feel about talking to your doctor about your condition?”
- “What are your concerns about your nutrition that WIC can help you with?”
- “What referrals can WIC help you with to make sure you are getting all of the support you need for a healthy pregnancy?”

### **D Dietary (Nutrition) WIC Code Education:**

Education specific to concerns identified during the *D* assessment may include:

#### **D 427.1 Education messages on consuming dietary supplements with potentially harmful consequences:**

- “Herbs, teas, and other supplements may contain compounds that could be harmful to yourself and your growing baby.”
- “For any vitamin or supplement use during pregnancy, follow your doctor’s instructions on proper use.”
- “Eat a variety of foods from each of the food groups to meet your vitamin and nutrient requirements during pregnancy.”

#### **D 427.2 Education messages on consuming a diet very low in calories and/or essential nutrients:**

- “It is typically not recommended that women follow a strict diet during pregnancy. During pregnancy you need a variety of foods from all of the food groups to support the healthy growth of your baby, as well as your own health.”

#### **D 427.3 Education messages on compulsively ingesting non-food items (pica):**

- “Pica is a disorder that involves the eating of nonfood items, and it can be more often found in pregnant women. Common items that pregnant women may eat include carpet fiber, clay, foam, paint chips, or dirt. This can be highly toxic for both yourself and your baby.”
- “Follow up with your doctor if this concern seems like something you do not feel you will be able to overcome. Continue taking your prenatal vitamin and make sure you are also eating a variety of healthy foods.”

**D 427.4 Education messages on inadequate vitamin/mineral supplementation recognized as essential:**

- “It is recommended that all women of childbearing age increase their intake of folic acid. Folic acid is found naturally in some foods, such as leafy vegetables, beans, and whole grains. Folic acid is also added to foods, such as certain breakfast cereals, breads, and pastas. It is hard to meet your folic acid requirements from food alone, so it is important to also make sure you continue to take your prenatal vitamin.”
- “You can increase the amount of iron in your diet by eating meat, fish, poultry, beans, and iron fortified cereals provided through WIC.”
- “Adding vitamin C-rich foods to high iron foods can help increase the absorption of iron from foods.”
- “Check the label of your prenatal vitamin to make sure it has at least 150 ug of iodine. Iodine needs can be met through iodized salt or a supplement. Talk to your doctor to determine your individual needs.”

**D 427.5 Education messages on ingesting foods that could be contaminated with pathogenic microorganisms:**

- “During pregnancy, hormone changes lower women’s immune systems, so it’s harder to fight off infections. Pregnant women are especially at risk for food-borne illness.”
- “Foods of concern during pregnancy include unpasteurized juices, unpasteurized dairy products such as imported cheeses, raw or undercooked meat, fish, poultry, eggs, and processed deli meats and hot dogs.”
- “It is recommended that you heat hot dogs and deli or sandwich meats before eating them.”
- “Read the labels on dairy products, such as cheeses, to make sure they include only pasteurized products.”
- “Most cheeses made in the United States are pasteurized, but imported cheeses, such as those from Mexico, may not be pasteurized. It is important to read the food label and package first.”
- “See your doctor if you think you are experiencing foodborne illness. Symptoms of food poisoning may include diarrhea, nausea or vomiting, stomachache, headache, fever, and chills.”

**Education Preparing Pregnant Women for Breastfeeding**

Studies show that education is the single most important indicator as to whether a woman will initiate breastfeeding initiation and duration up to six months. Chapter 19 of the Arizona WIC policy and procedure manual includes the following suggested topics to offer to pregnant women by trimester following the *Together We Can* model:

- First trimester—Breastmilk is the ideal nutrition for infants; benefits of breastfeeding
- Second trimester—Anatomy and physiology; breastfeeding positioning and latch-on technique; and equipment (including clothing, pumps, and storage)
- Third trimester—Common fears, barriers, problems, and myths about breastfeeding; anticipatory guidance for maternity care practices

Refer to *Medications and Mothers Milk* to identify the lactation risk category associated with any medications and/or drugs, and consult with an international board certified lactation consultant (IBCLC) for high-level contraindications regarding any medication questions a pregnant woman may have regarding upcoming breastfeeding.

### ***E* Environmental WIC Code Education:**

Education specific to concerns identified during the *E* assessment may include:

- Provide local agency referral list
- Encouraging the caregiver to follow up on community support services
- Refer to social and community services

### ***E* Referral messages for environmental concerns:**

- “May I give you this referral list of services available here in our community that may help you?” (Provide local agency referral list.)
- “Arizona 211 is a community information and referral service. Let’s explore some options together, and I will also show you how to find this information from your home.”

### *Take Home Messages for Pregnant Women*

The following is a summary of key messages that may be shared with participants based upon the concerns they may share and the goals that they set for themselves.

- Make half your plate fruits and vegetables.
- Make at least half your grains whole.
- Drink skim or 1% milk.
- Vary your protein food choices.
- Use oils to replace solid fats where possible.
- Make choices that are low in empty calories. Empty calories are calories from added sugars and solid fats in foods. Some common foods with empty calories include soda and other sugar-sweetened beverages, candy, desserts, and fried foods.
- The total amount of weight gained during pregnancy depends on your weight when you become pregnant. If your weight was in the healthy range, you may gain between 25 and 35 pounds.
- Pregnant women should avoid cigarettes, alcohol, and drug use.
- Take a prenatal vitamin every day in addition to eating a healthy diet.
- Visit your doctor regularly.
- Feed your baby only breast milk for the first six months.



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