

Module B:

NUTRITION AND HEALTH ASSESSMENT

TABLE OF CONTENTS

OVERVIEW	1
Assessment.....	2
Anthropometric Assessment	4
Biochemical Assessment	12
Clinical Assessment.....	13
Dietary Assessment.....	14
Common Conditions Affecting Nutrition/Health Status.....	16
PROGRESS CHECK	20
LEARNING ACTIVITIES	22
1: Anthropometric Assessments.....	23
2: Biochemical Assessments.....	24
3: Clinical Assessments.....	26
4: Dietary Assessments.....	29
5: Identifying the A, B, C, D Nutrition Risk Codes	34
PROGRESS CHECK ANSWERS	40

OVERVIEW

Introduction

This module will help you to understand how to assess the nutrition and health status of WIC participants.

Learning Objectives

After completing this module the Trainee will be able to:

- Define the terms anthropometric, biochemical, clinical, and dietary assessments.
 - List common sources and methods for gathering anthropometric, biochemical, clinical, and dietary data.
 - Describe correct measurement techniques.
 - Assess health habits using the Nutrition Questionnaire.
 - Describe conditions such as anemia, obesity, lead poisoning, homelessness, drug abuse, smoking and domestic violence and suggestions to address these concerns.
-

ASSESSMENT

Definition

Assessment is the evaluation of the WIC participant's nutrition or health status.

Type of Assessment

There are four different assessments used to determine the participant's nutritional need. They are:

- Anthropometric,
- Biochemical,
- Clinical, and/or
- Dietary.

You will use these assessments at each enrollment and recertification appointment.

Description of Assessments

The chart on the next two pages briefly describes these four assessments.

continued on next page

ASSESSMENT *(continued)***Description of Assessments****Anthropometric:**

- Evaluate a person's body, such as their:
 - Height
 - Weight
 - Circumference of the head, waist, arms or legs (*not used in WIC*)
- The measurements must be dated no more than 60 days before the WIC appointment.
- Height and weight can be measured in the WIC office at the scheduled appointment.

Biochemical:

Usually looking at substances in blood, urine, etc. to determine nutritional status.
For example:

- Iron (required for WIC participants)
- Sugar
- Lead

Clinical:

- Evaluate a person's:
 - Health history
 - Current medical condition
 - Health/lifestyle habits
- Gather information from these sources:
 - Referrals from health care providers
 - Forms filled out by the applicant
 - "Well Baby" books
 - Interviews of the applicant or parent/caregiver
 - Observations of applicant (appearance, interactions with others)
 - Medical charts

Dietary:

- Identify the foods and beverages consumed by an individual using:
 - WIC Nutrition Questionnaire
 - A diet history/24-hour recall
 - Food record/diary
 - Food frequency Questions/checklist.
- Compare this information to dietary guidelines

ANTHROPOMETRIC ASSESSMENT

Definition

Anthropometric assessment is a method assessing the size or body composition of an individual. For adults, body weight and height are used to evaluate overall nutritional status and to classify individuals at a healthy or non-healthy weight.

In children, growth charts have been developed to allow clinicians to assess weight-and height-for-age, as well as weight-for-height.

Correct Measurement Techniques

When reviewing medical data provided by the participant, one may question the accuracy of height and weight measurements from a health care provider. When this happens, staff should weigh and measure the person in the clinic.

Accurate measurements are important to:

- Assess growth of pregnant women, infants, and children.
 - Provide participants with appropriate nutrition education.
-

Measuring Height

Height is measured while a person is standing.

To measure height, follow the guidelines on the next page.

Measuring Weight

Weight is measured:

- Standing up for adults and older children (2 years of age or older)
- Sitting down for young children
- Lying down or seated for infants

To measure weight, follow the guidelines on the following pages.

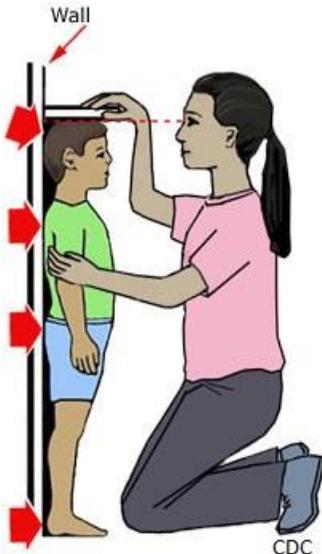
continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Measuring Height

Have the person (adult or child) being measured do the following:

1. Remove shoes, hat, and/or heavy outer clothes, such as a coat.
2. Stand tall and straight as in the diagram below.



Staff person will:

3. Lower the headboard until it firmly touches the top (crown) of the person's head and creates a right angle with the measurement surface.
4. Read the height, where the bottom of the headboard touches the measuring board, to the nearest:
 - **inch or centimeter for adults** and
 - **¼ inch or centimeter for children.**

** You may need to use a short stepladder to read the height if the person is taller than you.*

** On some stadiometers, the place to read height may be adjusted to accommodate for thickness of the headboard.*

5. Immediately write down the height and any circumstances affecting the measurement, such as, "child fidgety" or "participant cannot stand for a long time due to physical condition".

continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Measuring Length

Length is measured when a person is lying down.

Infants and children **less than 24 months must be measured lying down.**

If a child is between **24 and 36 months** they can be **measured either lying down or standing.** (Check your local agency's policy for measuring children 24 to 36 months of age.)

Once a child is measured and recorded standing up, you should continue to measure them in this way.

Note: WIC MIS assumes children over 24 months old were measured standing up.

To measure length, follow the guidelines on the next pages.

continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Measuring Length

Use the appropriate equipment:

- An infant measuring board
 - with a fixed head piece and sliding foot piece and
 - smooth edges so the infant cannot get injured during measurement.
- Do NOT use a tape measure.

Have the parent/caregiver of the child do the following:

1. Lay the child on the disposable paper cloth on the measuring board.

Staff person and/or another person (usually the parent/caregiver) will do the following:

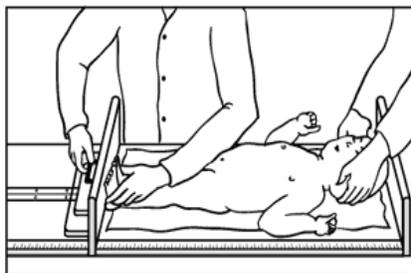
1. Hold the crown of the child's head firmly against the immovable headboard.
2. Make sure child is lying flat, straight, and their eyes pointed towards the ceiling.

Second Person:

3. Bring the child's knees together and extend legs. Keep a hand on the child's knees to keep their legs straight.
4. Move the footboard so it rests firmly against the child's heels.
5. Make sure the child's toes are pointed directly up.
6. Read the length (where the inside of the footboard touches the measuring board) to the nearest $\frac{1}{4}$ **inch** or **centimeter**.

**Measuring board may be adjusted for thickness of foot board altering the place where the reading is taken.*

Immediately write down the child's length and any circumstances affecting the measurement such as "child fidgety".



continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Measuring Weight: Standing Up

Use the following equipment:

- A digital or mechanical scale
 - marked in increments of not more than four ounces, or 1/4 pound, or 100 grams, and
 - in balance (reads “0” when scale is empty)
- Do NOT use spring balance scales, such as bathroom scales.

Have the person, being measured, do the following:

1. Remove heavy clothing, such as jackets, sweaters, belts, and shoes.
2. Put aside purse, bag, or any items she/he may be carrying.
3. Stand in the center of the platform with arms hanging at their sides. She should not touch the wall or the staff person.

Staff person will:

1. Move the large counterbalance weight on the main beam away from the zero position until the indicator drops showing a little too much weight has been added.
2. Back off to the nearest stop until the indicator rises, showing a little too much weight has been removed.
3. Repeat this procedure with the fractional beam until the indicator rests in the exact center.
4. Read the weight to the nearest:
 - **pound or kilogram for adults** and
 - **¼ pound or kilogram for children.**
5. Immediately write down the person’s weight and any circumstances affecting the measurement, such as “child had cast on arm”.
6. Ensure the scale is at zero for the next person.

continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Measuring Weight: Lying Down

Use the following equipment:

Staff person will:

1. Make sure the child's hands are kept inside the weighing tray. Do NOT allow child to hold onto sides of scale or onto a person.



Have the parent/caregiver do the following:

1. Remove all of the child's clothing, especially the diaper if soiled or wet*.
2. Place child in the center of the scale on a clean, disposable paper sheet.
 - o in a lying down position if an infant and
 - o in a sitting position if an older infant or young child.
3. Read the weight to the nearest **pound and ounce** or **gram**.
4. Immediately write down the measurement. Include any circumstances affecting the measurement such as "child wearing a wet diaper as parent does not have a clean one to use".

continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Measuring Anxious or Uncooperative Children

Sometimes a child may get anxious and upset during measurements. When this happens, they may not cooperate and refuse to stand or lie down.

Methods to Calm the Child

To calm a child, you may want to try the following:

- Be patient and calm.
 - Speak to the child at their level and explain the procedure for measuring. Ask for permission to measure them.
 - Encourage the parent/caregiver to stay calm and to comfort the child, rather than scolding or threatening the child.
 - Have the parent help you measure the child.
 - If possible, measure another, more cooperative child while the upset child is watching.
 - Offer a reward, such as a sticker.
 - Wait a few minutes before measuring the child. (This may help them feel more relaxed.)
-

Uncooperative Children

Sometimes a child will not cooperate at all.

- If unable to calm the child, the accuracy of the measurement may be affected, therefore is no need to continue.
 - In these situations always make sure to record what happened.
 - Refer the parent to their healthcare provider for measuring the child's height and weight.
-

Calibration of Scales

Scales shall be calibrated on an annual basis. ([WPM-210-10](#))

continued on next page

ANTHROPOMETRIC ASSESSMENT *(continued)*

Body Mass Index

Body Mass Index (BMI) is a calculation to determine body fatness for most people 24 months and older, and is used to screen for weight categories which may lead to health problems. BMI is calculated by taking a person's weight (pounds) and dividing it by their height (inches) squared and multiplying by a conversion factor of 703.

$$\text{BMI} = \frac{\text{Weight (lb.)}}{\text{Height (in}^2\text{)}} \times 703$$

Body Mass Index is used to determine whether a child or an adult is overweight. It is also used to determine the weight gain ranges for pregnant women.

You will NOT need to calculate BMI. Upon entering a participant's height and weight into WIC MIS, it will automatically calculate the BMI.

For infants and toddlers under 24 months, standards based on the World Health Organization (WHO) studies are used.

Percentiles

Percentiles are a series of curves on growth charts showing the distribution of children with certain body measurements at certain ages.

WIC staff enters age, weight, and height/length information into WIC MIS to obtain percentiles. Staff uses these percentiles to assess an infant or child's physical growth.

A child usually stays in the same percentile as they grow. A child whose measurements are below the 10th percentile or above the 90th percentile for more than two consecutive measurements may be at nutritional risk. This is also true if there is a dramatic or abrupt change in the percentile.

Discussion with Parent/Participant

After entering anthropometric data in computer, discuss the growth trends, including BMI with the child's parent or the participant. Provide education as related to height/weight results.

Learning Activity 1

To help you learn more about measuring height/length and weighing participants, you may want to try **Learning Activity 1** found at the end of this module.

BIOCHEMICAL ASSESSMENT

Definition

Biochemical assessment is checking to see if a person's blood or urine contains normal levels of certain chemicals or nutrients.

Blood Levels Tested

An individual's blood may be tested for:

- Iron (required for WIC participants)
 - Lead
 - Glucose
 - Other nutrients or chemicals
-

Tests for Iron

There are two biochemical labs used to check for iron deficiency (anemia). These are:

- Hemoglobin test or
- Hematocrit test

A hemoglobin (Hgb) test measures the amount of hemoglobin in the blood. (Hemoglobin is the iron-containing molecule carrying oxygen to the cells of the body.) Hemoglobin is measured as grams per deciliter of blood or gm/dl, i.e. of 12 gm/dl.

A hematocrit (Hct) test measures the amount of space (volume) red blood cells take up in the blood. (The value is given as a percentage of red blood cells in a volume of blood.)

Hematocrit and hemoglobin values are the two major tests showing if anemia is present.

Lead Test

The blood lead test indicates how much lead is in a child's blood. Lead can harm a child's growth, behavior, and ability to learn. The lower the test result, the better. (This is recommended for child participants, but is not documented in WIC computers.)

A blood lead level ≥ 10 mcg/dl indicates lead poisoning for a child.

Blood Sugar Test

A blood sugar test gives information about the person's ability to metabolize sugars. It indicates whether a person is at risk for or has diabetes.

Learning Activity 2

To help you learn more about the blood values important to WIC, you may want to try **Learning Activity 2** found at the end of this module.

CLINICAL ASSESSMENT

Definition

Clinical assessment is determining if a person has a physical or medical condition increasing their risk for developing malnutrition and/or poor health.

Methods

Clinical assessment may include assessing a person's:

- Health history (such as past pregnancy history or chronic infections requiring medication)
 - Current medical condition (such as diabetes, high blood pressure, allergies, or birth defects which affect eating)
 - Health/lifestyle habits (such as alcohol, drug, or tobacco use)
-

Learning Activity 3

To help you learn more about the physical or medical conditions relevant to WIC, you may want to try **Learning Activity 3** found at the end of this module.

DIETARY ASSESSMENT

Definition	A dietary assessment is a comprehensive evaluation of a person's food intake. It can include diet history or food frequency.
Methods	Use <i>Nutrition Questionnaires</i> to learn how and what a participant usually eats.
Method Used at WIC	The <i>Nutrition Questionnaires</i> are an assessment of a participant's usual dietary intake.
Guidelines for Using the Nutrition Questionnaire	Guidelines for the <i>Nutrition Questionnaires</i> are described in the pages following the sample form. Become familiar with these guidelines.
Dietary Intake Forms	<p>The California State WIC Program provides local agencies <i>Nutrition Questionnaire</i> forms to evaluate the health habits of WIC participants. These forms include:</p> <ul style="list-style-type: none"> • Pregnant Woman • Postpartum Woman • Infant, Birth - 3 months • Infant, 4 - 11 months • Child, 1 - 4 years
Learning Activity 4	To help you learn more about evaluating the food intake of participants, you may want to try Learning Activity 4 found at the end of this module.
Learning Activity 5	To help you learn how the codes are used together to assess a participant, you may want to Learning Activity 5 found at the end of this module.

continued on next page

DIETARY ASSESSMENT *(continued)*

Guidelines for Using the Nutrition Questionnaire

1. Instructing the Participant:

- Explain the information will be used to assess the health habits of the participant.
- Ask participants to answer each question.
- Remind the participant to circle everything eaten on **most days**; including:
 - Snacks between meals.
 - All beverages.
 - Items such as butter, jelly, sugar, or salad dressing.

2. Checking the Form or Filling Out the Form for the Participant:

- **Verbally ask the unanswered questions.**
- **Do NOT express approval or disapproval about the foods eaten.** People will be more honest with you if they are not feeling judged.
- **Give the participant enough time to answer.** People are not used to remembering what they ate.
- **Select** two to three topics from the *Nutrition Questionnaire* and ask the participant which topic she/he is interested in learning more or is there something else she/he wants to discuss.

COMMON CONDITIONS AFFECTING NUTRITION/HEALTH STATUS

Conditions May Affect Nutrition/Health Status

When assessing an applicant/participant, you may identify any physical or medical condition affecting the person's risk for poor nutrition and/or health.

Chart

The chart on the next pages describes some common conditions identified at WIC and possible suggestions to address them.

Note: These conditions are also explained in the *Indicators of Nutritional Need* section of the categorical modules:

- *Module C: Prenatal Nutrition,*
 - *Module D: Postpartum Nutrition,*
 - *Module E: Infant Nutrition, and*
 - *Module F: Child Nutrition.*
-

continued on next page

COMMON CONDITIONS AFFECTING NUTRITION/HEALTH STATUS

(continued)

Nutrition/Health Conditions & Suggestions

Condition/Description	Suggestions
<p>Anemia is a condition in which there are low iron levels in the blood. Symptoms may include:</p> <ul style="list-style-type: none"> • Poor appetite • Tiredness • Weakness • Developmental delays • Learning problems • Growth retardation 	<ul style="list-style-type: none"> • Eat iron-rich foods (such as meats, dried beans, and iron-fortified cereals for infants). • Eat iron-rich foods along with Vitamin C-rich foods (such as orange juice, tomatoes, and broccoli). Vitamin C helps the body with iron absorption. • Cook foods in cast iron cookware. • Do NOT drink tea or coffee when eating iron-rich foods. They block iron absorption.
<p>Domestic Violence includes the following abuse:</p> <ul style="list-style-type: none"> • verbal (insults, belittling) • emotional (threats, extreme jealousy, isolating behavior) • economic (preventing partner from working or having access to money) • sexual (forced sex) • physical (hitting, kicking, biting, beating, using weapons) <p>Signs of physical abuse may include bruises, cuts, rashes, burns, limps, or unusual movements. Also includes wearing clothing or glasses hiding the signs of abuse.</p>	<ul style="list-style-type: none"> • Refer participant to shelter for victims of domestic violence. • Most victims of domestic violence show no signs of abuse.

continued on next page

COMMON CONDITIONS AFFECTING NUTRITION/HEALTH STATUS

(continued)

Nutrition/Health Conditions & Suggestions (continued)

Condition/Description	Suggestions
<p>Drug Abuse is the misuse of illegal and over-the-counter drugs and alcohol. It can result in babies with:</p> <ul style="list-style-type: none"> • Low birth weight • Fetal Alcohol Syndrome • Central Nervous System (CNS) problems 	<p>Refer participant to:</p> <ul style="list-style-type: none"> • Local substance abuse programs • Support groups to assist them with options for recovery
<p>Homelessness homeless people often do not get regular and/or nutritious meals.</p>	<p>Refer participant to:</p> <ul style="list-style-type: none"> • Local shelters • Agencies which help with housing
<p>Lead Poisoning is ingesting or inhaling of toxic levels of lead resulting in a blood lead level ≥ 10mcg/dl. Symptoms may include:</p> <ul style="list-style-type: none"> • Reduced appetite • Stomach ache • Vomiting • Tiredness • Sleepiness • Speech problems • Clumsiness 	<ul style="list-style-type: none"> • Do: <ul style="list-style-type: none"> ○ Eat calcium, iron, and protein-rich foods ○ Avoid fatty foods ○ Wash hands before eating ○ Wash floors often ○ Take shoes off when entering the house • Do NOT: <ul style="list-style-type: none"> ○ Put cribs, high chairs, or beds near peeling or chipping paint ○ Sand, burn or scrape paint which may contain lead ○ Use home remedies or cosmetics which contain lead ○ Use hand-made or imported dishes for food ○ Store food in bags turned inside out (the writing on these bags may contain lead)

continued on next page

COMMON CONDITIONS AFFECTING NUTRITION/HEALTH STATUS

(continued)

Nutrition/Health Conditions & Suggestions (continued)

Condition/Description	Suggestions
<p>Overweight (>90th percentile weight for height for children or BMI>26.0 for adults) may be due to:</p> <ul style="list-style-type: none"> • Overeating • Lack of exercise • Social and/or emotional factors • Slower than normal metabolism • Genetics <p>Obesity may cause or complicate diseases, such as diabetes and heart disease.</p>	<ul style="list-style-type: none"> • Dieting is NOT recommended if pregnant • Eat a nutritious diet. (Use the USDA guide “My Plate”) • Drink water for thirst • If eating “fast foods”, choose low-fat foods and limit quantities • Be active
<p>Smoking</p> <p>In pregnant women, smoking can result in:</p> <ul style="list-style-type: none"> • Miscarriage • Premature birth • Increased risk of infant death in the 1st year • Slowed fetal growth • Low birth weight • Problems during delivery <p>Smoking and second hand smoke can also cause breathing problems and cancer.</p>	<ul style="list-style-type: none"> • Refer participant to local smoking cessation programs. • Encourage the participant to: <ul style="list-style-type: none"> ○ Cut down the number of cigarettes smoked each day ○ Take fewer puffs on each cigarette ○ Replace smoking with eating ○ Get support from family and friends ○ Choose an activity they enjoy to take the place of smoking

PROGRESS CHECK

1. Match each type of assessment to its description.

<u>ASSESSMENT</u>	<u>DESCRIPTION</u>
_____ Anthropometric	A. Evaluates a person's food intake.
_____ Biochemical	B. Evaluates a person's health history, current medical condition, and health/lifestyle habits.
_____ Clinical	C. Checking to see if a person's blood or urine contains normal levels of certain chemicals or nutrients.
_____ Dietary	D. Measures a person's body by taking measurements such as height, weight, and head circumference.

2. For each of the methods listed write the type of data gathered. ("A" for anthropometric, "B" for biochemical, "C" for clinical, and "D" for dietary).

- _____ Nutrition Questionnaire
- _____ Hemoglobin test
- _____ Interview of person regarding cigarette-smoking habits
- _____ Weight

PROGRESS CHECK *(continued)*

3. Mark the following as **TRUE** or **FALSE**.

- _____ At WIC a tape measure may be used to measure length or height.
- _____ When measuring height, ask the participant to keep their shoes on.
- _____ When measuring height/length the person being measured should be standing up straight or lying down flat.
- _____ When measuring for height/length repeat measurements until 2 measurements agree within ¼ inch.
- _____ A digital or beam balance scale, not a spring balance scale (such as a bathroom scale) should be used for weighing.
- _____ Adults being weighed should remove heavy outer clothing.
- _____ A baby should always be weighed with their clothing and diaper.
- _____ A child may hold on to their mother if she/he is being weighed standing up.

4. The *Nutrition Questionnaire* are used to:

5. List at least 3 common physical or medical conditions which can affect a person's nutrition or health status.

LEARNING ACTIVITIES

The following activities are included and are recommended for interactive learning:

- **Learning Activity 1:** Anthropometric Assessments
- **Learning Activity 2:** Biochemical Assessments
- **Learning Activity 3:** Clinical Assessments
- **Learning Activity 4:** Dietary Assessments
- **Learning Activity 5:** Identifying the A, B, C, D Nutrition Risk Codes

Activity 1: Anthropometric Assessments

Learning Objectives

After completing this activity the Trainee will be able to:

- Measure a participant's height/length
- Weigh a participant

Instructions

1. Observe a co-worker weigh and measure height/length for:
 - An infant
 - A Child
 - A woman
2. Observe a co-worker adjusting a scale so it displays "0".
3. Using the guidelines for correct measurement described in this module, weigh and measure the height of several co-workers.

For weight, repeat measuring until 2 readings agree within 1/4 pound or 100 grams of each other.

For height, repeat measuring until 2 measurements agree within 1/4 inch of each other.

4. Once you feel comfortable measuring an adult, weigh and measure the height/length of:
 - An infant
 - A child

For weights lying down, repeat until 2 readings agree within 1/2 ounce or 10 grams of each other.

5. Ask your mentor or supervisor to observe your technique.

Activity 2: Biochemical Assessments

Learning Objectives

After completing this activity the Trainee will be able to:

- Describe how laboratory information such as hemoglobin (Hgb) and hematocrit (Hct) test results are entered into WIC MIS and
- Describe which hemoglobin or hematocrit values require asking the participant if she wants a referral to a Nutritionist.

Background

You will get an individual's blood test results from a health care provider form. You enter these results into WIC MIS.

- To enter **hemoglobin** values, enter the value you see written on the form. For example:
 - 11 gm/dl is entered as "11"
 - 11.3 gm/dl is entered as "11.3"
- To enter **hematocrit** values **drop the tenths**. For example:
 - 33.8% is entered as "33" (*drop the ".8"*),
 - 33.5% is entered as "33" (*drop the ".5"*),
 - 33.2% is entered as "33" (*drop the ".2"*).
- Ask the participant if they want a referral to a Nutritionist* when:
 - Hemoglobin is <10.0 gm/dl or
 - Hematocrit is <30.0%.

**Check with your agency's protocol*

Instructions

1. Complete the worksheet on the next page. For each hemoglobin or hematocrit value given:
 - Write down the number you would enter into WIC MIS
 - Mark if the participant will need to be referred to a Nutritionist
2. Observe a co-worker enter hemoglobin and/or hematocrit test results into WIC MIS.
3. Write down any notes on the following form.
4. If you have any questions regarding the process speak with your mentor or supervisor.

Activity 2: Biochemical Assessments *(continued)*

Hemoglobin & Hematocrit Worksheet

Value on Form:	Value Entered in WIC MIS:	(√) Ask Participant if they want a Referral to the Nutritionist?
----------------	---------------------------	--

Hemoglobin

11.0 gm/dl		
11 gm/dl		
9.8 gm/dl		
10.4 gm/dl		
12 gm/dl		

Hematocrit

29.5%		
36.2%		
31.9%		
32.6%		
31%		

Notes on Biochemical Assessment:

Activity 3: Clinical Assessments

Learning Objectives

After completing this activity the Trainee will be able to identify some conditions which may put a participant at risk.

Background

You may be able to determine if a participant may be at risk for health problems by looking at their:

- Health history.
 - Current medical condition.
 - Health/lifestyle habits. (i.e. alcohol, drug, or tobacco use)
-

Instructions**Activity 3a:**

1. Observe a WIC staff person as she/he uses the participant's medical referral forms for information about the participant.
2. Write down your notes on the next page (Activity 3a).

Activity 3b:

1. Read each of the case studies described.
 2. For each individual, identify their clinical indicator (condition or problem).
 3. Write down the condition(s)/problem(s) for each individual to the right of each description.
 4. Discuss you findings with your mentor or supervisor.
-

Activity 3a: Clinical Assessments

Notes of Observations *Regarding Use of Medical Referral Forms:*

Activity 3b: Clinical Assessments

Description of Applicant/Participant:	Condition(s)/ Problem(s):
<p>John Lennon:</p> <ul style="list-style-type: none"> • is 2 years old • was breastfed for the first year of his life • has a hematocrit of 34% • has a blood lead level of 10 mcg/dl • eats some solid foods 	
<p>Yoko Ono:</p> <ul style="list-style-type: none"> • is 19 years old • is pregnant • is homeless • has a hemoglobin of 12.2 gm/dl • smokes about 10 cigarettes/day • eats mainly beans and rice for dinner 	
<p>Janis Joplin:</p> <ul style="list-style-type: none"> • is 22 years old • breastfeeds her 2 month-old daughter • has a hemoglobin of 13.2 gm/dl • has a boyfriend who does not allow her to see any of her friends or family members • eats at fast-food restaurants a lot 	
<p>Paul McCartney:</p> <ul style="list-style-type: none"> • is 4 years old • is overweight • has a hematocrit of 34% • drinks 2-3 cans of soda/day • has lost 2 teeth due to tooth decay 	

Activity 4: Dietary Assessments

Learning Objectives

After completing this activity the Trainee will be able to assess health habits and identify nutrition risks using the *Nutrition Questionnaire* for each category.

Instructions

1. Using the completed *Nutrition Questionnaires* on the following pages, assess the health habits and identify nutrition risks.
 2. Discuss what you learned with your mentor or supervisor.
-

Activity 4: Dietary Assessments

State of California — Health and Human Services Agency

California Department of Public Health — WIC Program

Pregnant Woman Nutrition Questionnaire

Name: Pamela	Age: 17	Due Date: January 1st
--------------	---------	-----------------------

Please circle or write your answers to the following questions:

- What is something that you do to be healthy? Swim
- What would you like to talk about today? Breastfeeding

Your Eating Habits

- How do you feel about how you are eating now? Good OK Not so good Other _____
- How many meals do you eat each day? 2-3 How many snacks? 1-2
- How many times a week do you eat out or eat take-out food? 0 1 2 3 4 5 6 7 more

Drinks and Foods

- What do you drink on most days? Water Milk Juice Soda Coffee Tea Flavored water
Fruit drinks Kool-Aid or Punch Diet drinks Energy drinks Sports drinks Soy milk
Wine Beer Alcohol Other _____
- What do you eat on most days? Whole wheat bread Corn tortillas Whole wheat tortillas Brown rice
Cold or hot cereal White bread Flour tortillas White rice Pasta/Noodles Crackers
Vegetables (which?) Broccoli, Spinach, Sweet potatoes How many each day? Varies
Fruits (which?) Oranges, Bananas, Berries (season) How many each day? Varies
Beef Pork Chicken Turkey Fish Eggs Beans Peanut butter Nuts Tofu
Nonfat milk Lowfat milk Whole milk Flavored milk Cheese Yogurt Cottage cheese
French fries Chips Hot dogs Deli meats Nuggets Desserts/sweets Other _____
- Are you on a special diet? No Yes (please explain) _____
- Are there any foods that you limit or avoid? No Yes (please explain) _____
- Do you crave or eat non-food items like dirt, clay, ice, laundry starch, paint chips? No Yes

Additional Questions

- What concerns does your doctor have about your pregnancy? Weight gain Weight loss What you eat
Diabetes (high blood sugar) High blood pressure Anemia (low iron in blood) Other _____ None
- What questions do you have about your weight gain during pregnancy? Balancing hunger and food
- Do you often have: Nausea Vomiting Heartburn Constipation Diarrhea Leg cramps Swelling
Allergies to None Other _____ None
- Which of these do you take? Prenatal vitamins Other vitamins/minerals Iron pills Laxatives Herbs
Over the counter medicines Prescription medicines Home remedies Other _____ None
- How have you been feeling? Not interested in doing things Sad Depressed Hopeless No energy
Happy OK Lonely Overwhelmed Stressed Anxious Angry Other _____
- What kinds of physical activities do you do? Swim How often? 3-4 x/wk
- Have you ever breastfed? No Yes (for how long?) _____
- What do you think about breastfeeding your new baby?
I'm not interested I'm thinking about it I want to I will definitely Other _____
- What questions or concerns do you have about breastfeeding? I want to learn more
- When is your next doctor's appointment? 3 weeks Last dentist appointment? _____
- Do you ever run out of food? No Yes (what do you do?) _____
- What questions or concerns do you have about shopping for WIC foods? None

STAFF USE ONLY	Date: _____	Staff Name: _____	
	WIC ID#: _____	Height: _____	Weight: _____



Activity 4: Dietary Assessments

State of California — Health and Human Services Agency

California Department of Public Health — WIC Program

Postpartum Woman Nutrition Questionnaire

Name: Latisha

Age: 36

Please circle or write your answers to the following questions:

1. What is something that you do to be healthy? Yoga
2. What would you like to talk about today? Is my baby gaining enough weight?

Your Eating Habits

3. How do you feel about how you are eating now? Good OK Not so good Other _____
4. How many meals do you eat each day? 2-3 How many snacks? 1-3
5. How many times a week do you eat out or eat take-out food? 0 1 2 3 4 5 6 7 more

Drinks and Foods

6. What do you drink on most days? Water Milk Juice Soda Coffee Tea Flavored water
Fruit drinks Kool-Aid or Punch Diet drinks Energy drinks Sports drinks Soy milk
 Wine Beer Alcohol Other _____
7. What do you eat on most days? Whole wheat bread Corn tortillas Whole wheat tortillas Brown rice
Cold or hot cereal White bread Flour tortillas White rice Pasta/Noodles Crackers
 Vegetables (which?) Zucchini, Carrots, Spinach How many each day? 2-3
 Fruits (which?) Papaya, Strawberries, Mangoes How many each day? 3-4
 Beef Pork Chicken Turkey Fish Eggs Beans Peanut butter Nuts Tofu
 Nonfat milk Lowfat milk Whole milk Flavored milk Cheese Yogurt Cottage cheese
 French fries Chips Hot dogs Deli meats Nuggets Desserts/sweets Other _____
8. Are you on a special diet? No Yes (please explain) _____
9. Are there any foods that you limit or avoid? No Yes (please explain) _____

Additional Questions

10. Do you have: Diabetes (high blood sugar) High blood pressure Anemia (low iron in blood)
 Mental health issues Depression Other _____ None
11. How do you feel about your weight? Want to lose weight OK Want to gain weight
12. Which of these do you take? Prenatal vitamins Multivitamins with folic acid Other vitamins/minerals
 Iron pills Laxatives Herbs Over the counter medicines Prescription medicines
 Home remedies Other _____ None
13. How have you been feeling? Not interested in doing things Sad Depressed Hopeless No energy
 Happy OK Lonely Overwhelmed Stressed Anxious Angry Other Sometimes stressed
14. What kinds of physical activities do you do? Walk, Yoga How often? 2-3 times a week
15. If breastfeeding, how is it going for you? Good
16. What support will you need to keep breastfeeding if you return to work or school? Pump Other _____
17. Do you plan to have more children? No Not sure Yes (when?) _____
18. What plans do you have for birth control? Checking options
19. When is your next doctor's appointment? 6 weeks Last dentist appointment? 8 months ago
20. Do you ever run out of food? No Yes (what do you do?) _____
21. What questions or concerns do you have about shopping for WIC foods? About the fruit & vegetable check

**STAFF
USE ONLY**

Date: _____ Staff Name: _____
 WIC ID#: _____ Height: _____ Weight: _____

CDPH4153 05/13



This institution is an equal opportunity provider.



#030058

Activity 4: Dietary Assessments

State of California — Health and Human Services Agency

California Department of Public Health — WIC Program

Infant Nutrition Questionnaire (4 through 11 Months)

Baby's Name: Joseph

Baby's Age: 5 months

Please circle or write your answers to the following questions:

1. What is something new that your baby is doing now? Laughing & grabbing for things
2. What would you like to talk about today? Why is he crying so much?

Feeding Your Baby

3. How is feeding going? *Not good* *OK* *Pretty good* *Great* *Other* _____
4. How does your baby show you he or she is hungry? Bites fist
5. How does your baby show you he or she is full? Turns head away
6. How many times in 24 hours (day and night) does your baby breastfeed? None

If Feeding Your Baby Formula

7. What is the name of the formula you give your baby? Enfamil *Powder* *Concentrate*
8. How many ounces of formula does your baby drink at a feeding? 6-8 oz
9. How many times in 24 hours (day and night) do you feed formula? 3-4
10. Explain how you mix the formula: 6 ounces water with 3 scoops/ounces formula
Which do you put in the bottle first? *Formula* *Water*

Other Drinks and Foods

11. What does your baby drink besides breastmilk or formula? *Nothing else* *Water* *Juice* *Cereal in bottle*
Milk *Sweetened water* *Rice water* *Bean water* *Tea* *Fruit drinks* *Soda* *Sports drinks* *Diet drinks*
Energy drinks *Nido* *Pedialyte* *Other* _____
12. Does your baby use: *Bottle* *Sippy cup* *Cup*
13. Where does your baby drink from the bottle or sippy cup? *Does not use* *Crib* *Stroller* *Car seat* *High chair*
 Held by someone *Other* _____
14. What textures of food does your baby eat? *None* *Smooth* *Mashed* *Chopped* *Soft pieces*
15. How often do you offer your baby solid foods? *Not at all* *1-2 times a day* *3 or more times a day*
16. What does your baby eat? *None* *Baby food in jars* *Table food*
Infant cereal *Cold or hot cereal* *Bread* *Tortillas* *Rice* *Pasta/noodles* *Crackers* *Teething biscuits*
Vegetables (which?) _____
Fruits (which?) _____
Beef *Pork* *Chicken* *Turkey* *Fish* *Egg yolks* *Whole eggs* *Beans* *Peanut butter* *Tofu*
Milk *Cheese* *Yogurt* *Cottage cheese*
French fries *Chips* *Hot dogs* *Nuggets* *Desserts/sweets* *Popcorn* *Raisins* *Honey* *Nuts*
Other _____
17. What questions do you have about feeding your baby? None

Additional Questions

18. Do you give your baby: *Vitamin drops* *Vitamin D* *Fluoride* *Iron drops* *Medicine*
Other _____
19. Does your baby often have: *Wheezing* *Rash* *Constipation* *Diarrhea* *Colic*
Allergies to _____ *Other* _____
20. When is your baby's next doctor's appointment? 1 month
21. Do you ever run out of food? *No* *Yes (what do you do?)* _____
22. What questions or concerns do you have about shopping for WIC foods? None

STAFF USE ONLY

Date: _____ Staff Name: _____
WIC ID#: _____ Length: _____ Weight: _____

Activity 4: Dietary Assessments

State of California — Health and Human Services Agency

California Department of Public Health — WIC Program

Child Nutrition Questionnaire (1 through 4 Years)

Child's Name: <u>Marta</u>	Child's Age: <u>3</u>
----------------------------	-----------------------

Please circle or write your answers to the following questions:

- What is something your family does to be healthy? Go to the park
- What would you like to talk about today? Amount of food for her

Your Child's Eating

- (Sometimes)
- How would you describe your child's eating? OK Picky Eats too much Doesn't eat enough Other _____
 - How many meals does your child eat per day? 3 How many snacks? 1-3
 - How often do you eat together as a family? Every day Sometimes Rarely
 - How would you describe mealtimes? Enjoyable Rushed Stressful We watch TV We talk together
Child eats alone Other _____ Sometimes _____
 - How many times a week does your family eat out or eat take-out food? 4-6

Drinks and Foods

- Does your child use: Bottle Sippy Cup Cup His/her fingers Spoon Fork
- What does your child drink on most days? Breastmilk Milk Juice Water Soy milk Formula
Fruit Drinks Kool-Aid or Punch Soda Energy drinks Sports drinks Diet drinks Tea Pediasure
Nido Other _____
- What does your child eat on most days? Whole wheat bread Corn tortillas Whole wheat tortillas
Brown rice Cold or hot cereal White bread Flour tortillas White rice Pasta/noodles Crackers
Vegetables (which?) Raw Carrots, Zucchini, Broccoli
Fruits (which?) Mango, Peaches, Oranges
Beef Pork Chicken Turkey Fish Eggs Beans Peanut butter Tofu
Whole milk Lowfat milk Nonfat milk Flavored milk Cheese Yogurt Cottage cheese
French fries Chips Hot dogs Nuggets Desserts/sweets Popcorn Raisins Nuts
Baby foods Other _____
- Are there any foods that your child does not eat? No Yes (which?) Meat, Chicken, Tortillas
- Does your child eat non-food items like dirt, sand or paint chips? No Yes (which?) _____
- What questions do you have about feeding your child? Nothing else

Additional Questions

- Do you give your child: Vitamins/minerals Fluoride Iron Medicine Other Sometimes if being picky
- Does your child often have? Wheezing Rash Constipation Diarrhea
Allergies to No Other _____
- Has your child ever had a blood lead test? Yes If yes, when? At 1 year
- What do you think about your child's size? Too small Too big OK Other _____
- What kinds of active play does your child do? Plays with ball, hopscotch
- How many hours a day does your child watch TV, play video or computer games, etc.? 4-6 hours
- When is your child's next doctor's appointment? 3 months Dentist? Next month
- Do you ever run out of food? No Yes (what do you do?) _____
- What questions or concerns do you have about shopping for WIC foods? How to get her to eat healthier foods?

STAFF USE ONLY	Date: _____	Staff Name: _____	
	WIC ID#: _____	Length/Height: _____	Weight: _____



Activity 5: Identifying the A, B, C, D Nutrition Risk Codes

Learning Objectives

After completing this activity the Trainee will be able to identify anthropometric, biochemical, clinical, and dietary indicators for five case studies.

Instructions

1. Ask your mentor or supervisor for copies of the *Indicators of Nutritional Need* charts. (These charts may also be found in the categorical modules: *Module C: Prenatal Nutrition*, *Module D: Postpartum Nutrition*, *Module E: Infant Nutrition*, and *Module F: Child Nutrition*.)
 2. Read each of the case studies on the following pages.
 3. Using the *Indicators of Nutritional Need* charts, identify the anthropometric, biochemical, clinical, and dietary indicators of nutrition risk for each case study.
 4. Write down the indicators of nutrition risk on the form.
 5. For those case studies requiring a referral to a Nutritionist write in “*Referral to Nutritionist needed*”.
 6. Discuss what you learned with your mentor or supervisor.
-

Activity 5: Identifying the A, B, C, D Nutrition Risk Codes

Case Study 1:

Selena Hernandez is a 19-year-old pregnant woman. The following information describes her:

- This is her first pregnancy. She is 15 weeks pregnant.
- Before she became pregnant her BMI was 27.0.
- Her Hct is 31.6%.
- She is currently living in a homeless shelter.
- Her *Nutrition Questionnaire* listed the following food intake:
 - 2 slices white toast
 - 12 ounces Tang® orange drink
 - 1 cup cooked rice
 - 1 cup pinto beans cooked with 2 tablespoons lard
 - 3 corn tortillas
 - 1 12 ounce can Pepsi®
 - 1 small bag potato chips
 - 2 cheeseburgers
 - 1 cup vanilla ice cream

Anthropometric Indicator(s):

Biochemical Indicator(s):

Clinical Indicator(s):

Dietary Indicator(s):

Activity 5: Identifying the A, B, C, D Nutrition Risk Codes

Case Study 2:

Sarah Jones is 28 years old. The following information describes her:

- She is breastfeeding her 2 month-old son.
- She is 5 feet, 6 inches tall.
- She weighs 130 pounds.
- She smokes 10 cigarettes/day.
- Her Hgb is 10.8 gm/dl.
- Her *Nutrition Questionnaire* listed the following food intake:
 - 2 cups coffee
 - 1 slice chocolate cake with frosting (about 2 inches by 2 inches)
 - 1 small bag french fries
 - 1 12 ounce can diet cola
 - 1 small green salad (lettuce, 1 carrot, ½ tomato with 2 tablespoons ranch dressing)
 - 1 chicken breast
 - 1 baked potato with 2 tablespoons butter
 - 1 glass of wine

Anthropometric Indicator(s):

Biochemical Indicator(s):

Clinical Indicator(s):

Dietary Indicator(s):

Activity 5: Identifying the A, B, C, D Nutrition Risk Codes**Case Study 3:**

Jordan Heller is 3 months old. The following information describes him:

- He lives in a migrant farm worker camp with his mother, father, and 3 sisters.
- He is overweight (at the 98th percentile weight for length).
- His Hgb is 10.6 gm/dl.
- He is being fed formula. He consumes about 30 ounces a day.
- His mother often adds rice cereal to his bottle.

Anthropometric Indicator(s):

Biochemical Indicator(s):

Clinical Indicator(s):

Dietary Indicator(s):

Activity 5: Identifying the A, B, C, D Nutrition Risk Codes

Case Study 4:

Susan Chu is a 25-year-old pregnant woman. The following information describes her:

- She is 9 weeks pregnant.
- This is her second pregnancy. Her first child had a birth weight of 9 pounds.
- She is 5 feet, 5 inches tall.
- She weighed 120 pounds before she became pregnant.
- She now weighs 115 pounds.
- Her Hct is 31.6%
- Her *Nutrition Questionnaire* listed the following food intake:
 - 6 ounces orange juice
 - 1 cup cooked rice
 - 1 cup stir fried vegetables (bok choy and pea pods) with tofu (8 ounces)
 - 1 fried egg
 - 1 cup rice noodles
 - 1 tangerine

Anthropometric Indicator(s):

Biochemical Indicator(s):

Clinical Indicator(s):

Dietary Indicator(s):

Activity 5: Identifying the A, B, C, D Nutrition Risk Codes

Case Study 5:

Tommy Jenkins is 4 years old. The following information describes him:

- His weight for height is greater than 98%.
- His Hct is 32.2%.
- He has Down's Syndrome.
- He has severe tooth decay and has lost several teeth.
- He drinks from a bottle.
- His *Nutrition Questionnaire* listed the following food intake:
 - 1 cup oatmeal
 - 4 bottles (8 ounce) of whole milk
 - 1 banana
 - 2 bags of french fries
 - 12 ounces of apple juice
 - 1 cup of vanilla ice cream

Anthropometric Indicator(s):

Biochemical Indicator(s):

Clinical Indicator(s):

Dietary Indicator(s):

PROGRESS CHECK ANSWERS

1. Match each type of assessment to its description.

ASSESSMENT

DESCRIPTION

 D Anthropometric

A. Evaluates a person's food intake.

 C Biochemical

B. Evaluates a person's health history, current medical condition, and health/lifestyle habits.

 B Clinical

C. Checking to see if a person's blood or urine contains normal levels of certain chemicals or nutrients.

 A Dietary

D. Measures a person's body by taking measurements such as height, weight, and head circumference.

6. For each of the methods listed write the type of data gathered. ("A" for anthropometric, "B" for biochemical, "C" for clinical, and "D" for dietary)

 D Nutrition Questionnaire

 B Blood hemoglobin test

 C Interview of person regarding cigarette smoking habits

 A Weight

PROGRESS CHECK ANSWERS *(continued)*

2. Mark the following as **TRUE** or **FALSE**.

FALSE At WIC a tape measure may be used to measure length or height.

FALSE When measuring height ask the participant to keep their shoes on.

TRUE When measuring height/length the person being measured should be standing up straight or lying down flat.

TRUE When measuring for height/length repeat measurements until 2 measurements agree within ¼ inch.

TRUE A digital or beam balance scale, not a spring balance scale (such as a bathroom scale) should be used for weighing.

TRUE Adults being weighed should remove heavy outer clothing.

FALSE A baby should always be weighed with their clothing and diaper.

FALSE A child may hold on to their mother if she/he is being weighed standing up.

3. The *Nutrition Questionnaire* are used to:

Assess dietary intake for a 24-hour period of a WIC participant.

4. List at least 3 common physical or medical conditions which can affect a person's nutrition or health status.

ANY 3 OF THE FOLLOWING ARE CORRECT:

- **Anemia**
- **Domestic violence**
- **Drug abuse**
- **Homelessness**
- **Lead poisoning**
- **Overweight**
- **Smoking**