

MODULE B: NUTRITION AND HEALTH ASSESSMENT

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Overview

Introduction

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

Learning Objectives

After completing this module you 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 Assessment Questions.
- 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	<p>There are four different assessments used to determine the participant's nutritional need. They are:</p> <ul style="list-style-type: none">• Anthropometric,• Biochemical,• Clinical, and/or• Dietary <p>You will use these assessments at each enrollment and recertification appointment.</p>
Description of Assessments	The chart on the next page briefly describes these four assessments.

Assessment (continued)**Description of Assessments**

<p><u>Anthropometric:</u></p> <ul style="list-style-type: none"> • Evaluate a person's body, such as their height or weight. • The measurements must be dated no more than 60 days before the WIC appointment. • The height and weight can be measured in the WIC office at the scheduled appointment.
<p><u>Biochemical:</u></p> <p>Usually looking at substances in blood, urine, etc. to determine nutritional status, for example:</p> <ul style="list-style-type: none"> • Iron • Sugar • Lead
<p><u>Chemical:</u></p> <p>Evaluate a person's:</p> <ul style="list-style-type: none"> • Health history • Current medical condition • Health/lifestyle <p>Gather information from these sources:</p> <ul style="list-style-type: none"> • Referrals from health care providers • Forms filled out by the appointment • "Well baby" books • Interview of the applicant or parent/caretaker • Observation of applicant (appearance, interactions with others) • Medical charts
<p><u>Dietary:</u></p> <p>Identify the foods and beverages consumed by an individual using:</p> <ul style="list-style-type: none"> • WIC Nutrition Assessment Questions <p>Compare this information to the dietary guidelines</p>

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 Technique

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.

Measuring Height

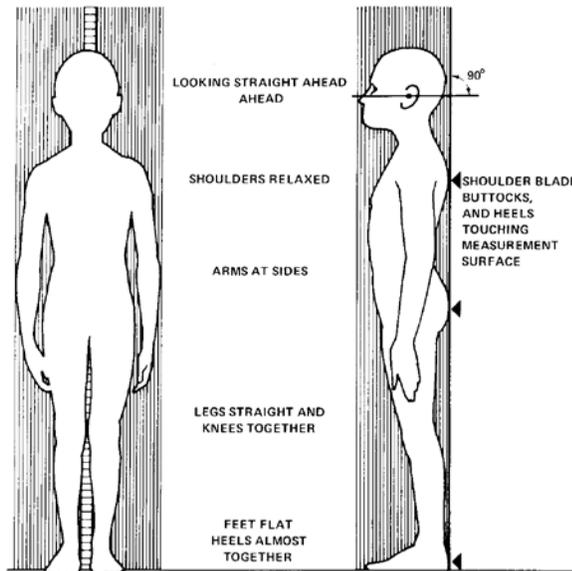
Height is measured while a person is standing.
To measure height, follow the guidelines on the next page.

Anthropometric Assessment (continued)

Measuring Height

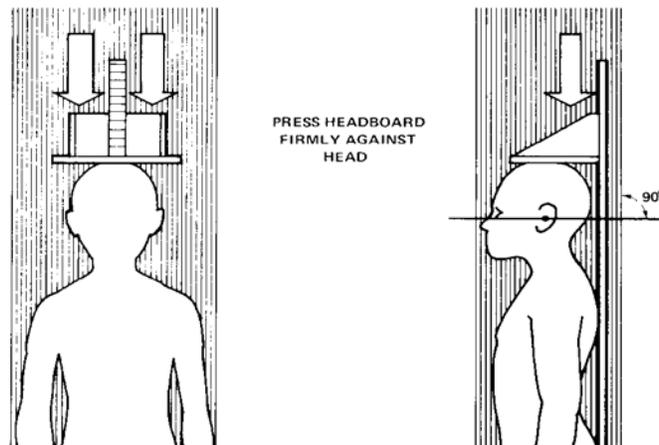
Have the person (adult or child) being measured do the following:

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 1/8 inch. You may need to use a short stepladder to read the height if the person is taller than you.
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".

Anthropometric Assessment *(continued)*

Measuring Length Length is measure when a person is lying down.

Infants less than 24 months of age or children aged 24 to 36 months who cannot stand unassisted are measured in the recumbent position.

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

Note: The system assumes children over 24 months old were measured standing up.

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

Anthropometric Assessment *(continued)*

Measuring Length

Use the appropriate equipment:

- An infant measuring board
- Do NOT use a tape measure

Length Board:

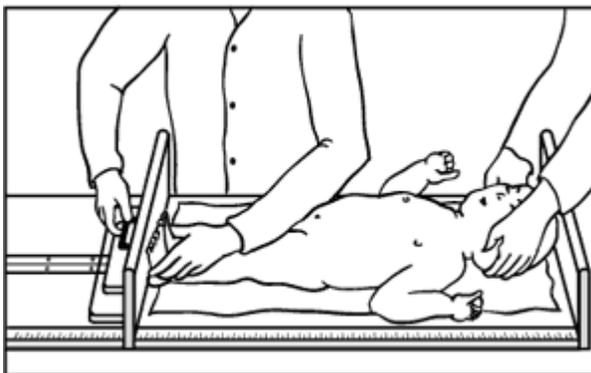
- Used for infants, will be sturdy, easily cleaned and specific to their purpose.
- It will have an immovable headpiece at a right angle to the tape and a smoothly moveable foot piece, perpendicular to the tape.

Stadiometer:

- Will have a vertical board with an attached metric rule and a horizontal headpiece that can be brought into contact with the most superior part of the head.

Technique for measuring length:

1. Measure infants younger than 24 months of age or children aged 24 to 36 months who cannot stand unassisted in the recumbent position.
2. Shoes will be removed and hair ornaments will be removed from the top of the head.
3. The infant/child should be placed on their back in the center of the length board so that the child is lying straight and their shoulders and buttocks are flat against the measuring surface. The child's eyes should be looking straight up. Both legs should be fully extended and the toes should be pointing upward with feet flat against the foot piece.
4. One measurer holds the infant's head gently cupping the infant's ears, with the infant looking vertically upward and the crown of the head in contact with the headpiece. Make sure the infant's chin is not tucked in against their chest or stretched too far back.
5. The measurer aligns the infant's trunk and legs, extends both legs, and brings the foot piece firmly against both heels. The measurer places one hand on the infant's knees to maintain full extension of the legs.



Anthropometric Assessment *(continued)*

Measuring Weight

Measuring Weight

Weight is measured:

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

To measure weight, follow the guidelines below.

Measuring Weight: Standing Up

Use the following equipment:

- A digital or mechanical scale that is durable, accurate, and safe.
- The scale will have no sharp edges and a large enough platform to support for the individual being weighed.
 - The scale will weigh to the nearest $\frac{1}{4}$ pound.
 - The scale will be zeroed easily without weight.
- Do NOT use spring balance scales, such as bathroom scales.

Have the person, being measured, do the following:

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

Staff person will:

- Read the weight to the nearest $\frac{1}{4}$ pound.
- Immediately write down the person's weight and any circumstances affecting the measurement, such as "child had cast on arm".
- Ensure the scale is at zero for the next person.

Anthropometric Assessment *(continued)*

Measuring Weight: Lying Down

Use the following equipment:

- A digital or mechanical scale that is durable, accurate, and safe.
- The scale will have no sharp edges and a large enough tray to adequately support an infant or young child who weighs up to 40 pounds.
 - Infant scales will weigh to the nearest ounce.
 - The scale will be zeroed easily without weight.
- Do NOT use spring balance scales, such as bathroom scales.

Staff person will:

- 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. (Below are two variations of infant scales).



Have the parent/caregiver do the following:

- Remove all of the child's clothing, especially the diaper if soiled or wet.
- Place child in the center of the scale.
 - In a lying down position if an infant.
- Read the weight to the nearest ounce.
- Immediately write down the measurement and any circumstances affecting the measurement such as "child wearing a wet diaper".

Alternative measurement technique if needed:

- Have the parent/guardian stand on the scale, record the first weight, then have the parent hold the child and record the second weight. Subtract the first weight from the second weight to determine the child's weight. Document this weight in the participant folder.

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 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.

Scales may be tested by contracted professionals or internally with "standard" weights.

Portable scales will be checked and/or calibrated after each time the scale is moved.

Anthropometric Assessment *(continued)*

Body Mass Index

Body Mass Index (BMI) is a calculation to determine body fat for most people 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.

$$\text{BMI} = \text{Weight (lb)} / \text{Height (in}^2\text{)}$$

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 M-Spirit, BMI will automatically be calculated.

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 birth date, weight, and height/length information into M-Spirit 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 5th or above the 90th percentile for more than two consecutive measurements may be at nutrition risk. This is also true if there is a dramatic or abrupt change in the percentile.

Learning Activity

Learning Activity 1: Anthropometric Assessments, found at the end of this module can help you learn more about measuring height/length and weigh participants.

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: <ul style="list-style-type: none">• Iron• Lead• Glucose• Other nutrients or chemicals
Tests for Iron	<p>There are two biochemical labs used to check for iron deficiency (anemia). These are:</p> <ul style="list-style-type: none">• Hemoglobin test• Hematocrit test <p>A hemoglobin (Hgb) test measures the amount of hemoglobin in the blood. Hgb is the iron containing molecule carrying oxygen to the cells of the body. Hgb is measured as grams per deciliter of blood or g/dL.</p> <p>A hematocrit (Hct) test measures what part of the total blood is made up of red blood cells. Hct is measured as a percentage.</p>
Lead Test	<p>A blood lead test the value of lead in a person's body. It can indicate whether or not a person has lead poisoning.</p> <p>A blood lead level ≥ 5mcg/dL indicates lead poisoning.</p>
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	Learning Activity 2: Biochemical Assessments, found at the end of this module can help you learn more about the blood values important to WIC.

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

Learning Activity 3: Clinical Assessments, found at the end of this module can help you learn more about the physical or medical condition relevant to WIC.

Dietary Assessment

Definition	A dietary assessment is an evaluation of a person's food intake. It can include diet history or food frequency.
Methods	Use the Nutrition Assessment Questions to learn what a participant usually eats.
Method Used at WIC	The Nutrition Assessment Questions is an assessment of participant concerns, health information, and dietary intake for a 24-hour period.
Guidelines for Using the Nutrition Assessment Questions	Guidelines for the Nutrition Assessment Questions are described in the pages following the sample form. Become familiar with these guidelines.
Dietary Intake	<p>The Montana State WIC Program provides local agencies Nutrition Assessment Questions to evaluate the health habits of WIC participants. These questions include:</p> <ul style="list-style-type: none">• General concerns• Dietary Intake• Dental/Immunization information• Breastfeeding information• Potential Education Topics
Learning Activity	Learning Activity 4: Dietary Assessments, found at the end of this module can help you learn more about evaluating the food intake of participants.
Learning Activity	Learning Activity 5: Identifying the A, B, C, D Nutrition Risk Codes, found at the end of this module can help you learn how the codes are used together to assess a participant.

Dietary Assessment *(continued)*

Guidelines for Using the Nutrition Questions Method

1. Instructing for Participant:
 - a. Explain the information will be used to assess the health habits of the participant.
 - b. Ask the participants to answer each question.

2. Employee will:
 - a. Verbally ask the questions
 - b. Do NOT express approval or disapproval about the information. People will be more honest with you if they are not feeling judged.
 - c. Give the participant enough time to answer. People are not used to remembering what they ate or the last time they went to the dentist.
 - d. Select nutrition topics from the Nutrition Assessment Questions that may be pertinent to the participant.

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:

- Prenatal Nutrition
- Postpartum Nutrition
- Infant Nutrition
- Child Nutrition

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.
<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

Common Conditions Affecting Nutrition/Health Status (continued)

Nutrition/Health Conditions & Suggestions

Condition/Description	Suggestions
<p>Lead Poisoning is ingesting or inhaling of toxic levels of lead resulting in a blood lead level ≥ 5 mcg/dL. Symptoms may include:</p> <ul style="list-style-type: none"> Reduced appetite Stomach ache Vomiting Tiredness Sleepiness Speech problems Clumsiness 	<p>Do:</p> <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 <p>Do NOT:</p> <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).
<p>Overweight (>90th percentile weight for height for children or BMI ≥ 25 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 guild “MyPlate”) • 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 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 - Get support from family and friends - Choose an activity they enjoy to take the place of smoking

Progress Check

- 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.

- 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 Questions
- ___ Hemoglobin test
- ___ Interview of person regarding cigarette-smoking habits
- ___ Weight

- The Nutrition Assessment Questions are used to:

- List at least 3 common physical or medical condition which can affect a person’s nutrition or health status.

Progress Check (continue)

5. 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 s/he is being weighed standing up.

Activity 1: Anthropometric Assessments

Learning Objectives

After completing this activity the WIC staff member will be able:

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

Instructions

1. Observe a co-worker weigh and measure height/length for:
 - An infant
 - 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 or several co-workers.

For weight, repeat measuring until 2 readings agree within $\frac{1}{4}$ pound of each other.

For height, repeat measuring until 2 measurements agree within $\frac{1}{4}$ inch of each other.

4. Once you feel comfortable measuring an adult, weigh and measure the height/length of:
 - An infant
 - A child
5. Ask your mentor or supervisor to observe your technique.

Activity 2: Biochemical Assessments

Learning Objectives

After completing this activity the WIC staff member will be able to:

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

Background

You can get a participant's blood test results from a health care provider (if it is within the last 90 days) or take the test at the time of the appointment.

Ask the participant if they want a referral to a nutritionist when the Hgb or Hct values are lower than the cut off values.

Hemoglobin/Hematocrit Cut Off Values

At sea-level, non-smoking

Age	Hgb (<g/dL)	Hct (<%)
Infant		
• 6 to 12 months	11.0	33
Child		
• 1 to <2 yrs	11.0	33
• >2 to 5 yrs	11.1	33
Non-Pregnant		
• 12 to <15 yrs	11.8	36
• 15 to <18 yrs	12.0	36
• >18 yrs	12.0	36
Pregnant		
• 1 st Trimester	11.0	33
• 2 nd Trimester	10.5	32
• 3 rd Trimester	11	33

Instructions: To use this form use the "at sea-level, non-smoking" values for Hgb and Hct initially based on the participants category and age. If the clinic location is at a higher elevation, add the adjustment value from the "adjustment for altitude" table. If the participant smokes, add the adjustment value from the "adjustment for smoking status" table.

Adjustment for Altitude

Long-term residency at a high altitude (greater than or equal to 3,000 feet) causes a generalized upward shift in HGB concentration and HCT values. The cutoff values should be adjusted for this factor.

Altitude (feet)	Hgb (<g/dL)	Hct (<%)
0-2999 ft	-	-
3000-3999 ft	+0.2	+0.5
4000-4999 ft	+0.3	+1.0
5000-5999 ft	+0.5	+1.5
6000-6999 ft	+0.7	+2.0

Adjustment for Smoking Status

Packs of Cigarettes Smoked Per Day	Hgb (<g/dL)	Hct (<%)
0.5 - < 1	+0.3	+1.0
1.0 - <2.0	+0.5	+1.5
≥ 2.0	+0.7	+2.0

When entering in the Hgb or Hct values into M-Spirit, you will enter the whole number and the tenths. For example: Hgb 11.3 gm/dL is entered as 11.3, Hct 33.5% is entered as 33.5.

Instructions

1. Complete the worksheet on the next page. For each hemoglobin or hematocrit value given:
 - a. Write down if the value is low or normal for the participant.
 - b. Mark if the participant will need to be referred to a Nutritionist.
2. Observe co-worker take a hemoglobin and/or hematocrit test and enter the value into M-Spirit.
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: Biochemical Assessments (continued)

Hemoglobin & Hematocrit Worksheet

Participant and Value	Low/Normal	Ask if They Want a Referral to the Nutritionist?
Infant, 10 mth Hgb 11.0		
Postpartum, 18 yr Hgb 11		
Pregnant, 1 Pack/Day Smoker Hgb 9.8		
Breastfeeding, 11 mth Hgb 10.4		
Child, 3 yr Hgb 12		
Breastfeeding, Woman Hct 29.5%		
Pregnant, 1 st Trimester Hct 36.2%		
Child, 2 yr Hct 31.9%		
Postpartum, 18 yr, Smokes 2 Packs/Day Hct 32.6%		
Infant, 9 mth Hct 31%		

Notes on Biochemical Assessment:

Activity 3: Clinical Assessments

Learning Objectives

After completing this activity the WIC Staff Member 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.

Observe a WIC staff person as s/he goes through the nutrition assessment questions with a participant.

Write down your notes on the next page about potential risk information that was shared.

Activity 3b.

Read each of the case studies described.

For each individual, identify their clinical indicator (condition or problem).

Write down the condition(s)/problem(s) for each individual to the right of each description.

Discuss your findings with your mentor or supervisor.

Activity 3A: Clinical Assessments

Notes of Observations Regarding Use of the Nutrition Assessment Questions:

Activity 3b. Clinical Assessments

Description of Participant:	Condition(s)/Problem(s)
<p>Rainbow Trout: 2 years old Was breastfed for the 1st year of life Has a Hct of 34% Has a blood lead level of 10 mcg/dL Eats some solid foods</p>	
<p>Cutthroat Trout: Is 19 years old Is pregnant Is homeless Has a Hgb of 12.2 gm/dL Smokes about 10 cigarettes/day Eats mainly beans and rice for dinner</p>	
<p>Brown Trout: Is 22 years old Breastfeeds her 2 month old daughter Has a Hgb 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>	
<p>Bull Trout: Is 4 years old Is overweight Has a Hct 34% Drinks 2-3 cans of soda/day Has lost 2 teeth due to tooth decay</p>	

Activity 4: Dietary Assessments

Learning Objectives

After completing this activity the WIC Staff Member will be able to assess health habits and identify nutrition risks using the Nutrition Assessment Questions for each category.

Instructions

1. Using the completed Nutrition Assessment Questions 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

Child (1-5 years) Nutrition Questions

What is your greatest concern about your child? My child is not eating enough food.

Does your child have medical care and dental care? Has medical care but has not been to the dentist is over a year.

Tell me about any medical or dental issues your child has. Who diagnosed this condition? I believe my child has ADD but I have not had my doctor diagnose it.

Tell me if your child consumes any of the following: MVI, other supplements, herbs, teas, medications, non-food items, runny eggs, unpasteurized dairy products or juices, undercooked meats or fish, unwashed produce or sprouts My child takes MVI

Does your child's caregiver smoke indoors? No

What foods does your child eat? Describe a meal time in your home. My child eats cereal for breakfast with juice, lunch and dinner is what we have at home (Usually meat, bread, potato).

Which utensils does your child use? My child uses their hands but sometimes a spoon.

What does your child drink throughout the day? What kind and how much milk? My child drinks milk throughout the day. It's whole milk but I'm not sure how much.

Do you have any additional questions? Do you have additional resources for food that I could use in the community?

Notes:

Pregnancy (2nd Trimester) Nutrition Questions

How do you feel about your pregnancy? I feel good about the pregnancy.

Do you have prenatal care and dental care? I have an appointment with the doctor next week.
I have not seen a dentist in a long time.

How much weight do you plan to gain during this pregnancy? Whatever is the suggested weight gain.

What medical or dental issues do you currently have? History of medical conditions during pregnancy? I have heart burn and nausea right now. I don't have any medical issues that I am aware of.

Tell me if you consume any of the following: prenatal vitamins, other supplements, medications, herbs, teas, non-food items, unpasteurized juices or dairy products, undercooked meats or fish. I take prenatal vitamins and drink lots of green tea.

During your pregnancy, have you used any alcohol, tobacco products or other drugs? I use to smoke but I have stopped since I found out I was pregnant.

Describe your intake on a typical day. I eat breakfast when I get up in the morning. It usually is cereal. I usually just snack throughout the day (chips, veggies, fruit). Dinner is meat, beans/peas, potatoes. I usually drink milk in the morning, water throughout the day.

What have you heard about breastfeeding? Do you have a support person? I heard that it's good for me and baby. I want to try but I don't have a support person.

Do you have any additional questions? Is it okay to have lunch meat?

Notes:

**Infant Nutrition Questions
4-5 months old non breastfeeding**

What is your greatest concern about your baby? None

What kind of formula is your baby drinking? How many ounces per feeding, number of feedings/24 hours? How is it prepared and stored? Whatever is on sale is what I buy. My baby drinks 4 bottles a day with around 6 oz of formula. I prepared it with tap water and store it in the refrigerator.

How many wet and dirty diapers per 24 hours? I would guess 3 wet diapers and 1 poop diaper.

Does your baby see someone for medical care? Yes

Tell me about any health issues your baby has and who diagnosed it. None

Does your baby's caregiver smoke indoors? Yes

Tell me if your baby consumes any of the following: Vitamin Drops, other supplements, herbs, teas, medications, honey, raw/undercooked eggs, meats/fish or dairy, non-food items. I'm not sure I am gone a lot.

What have you heard about introducing foods to your baby? My baby already eats baby foods.

Tell me about what your baby eats/drinks: how many times per day? What kinds of textures of food? What does your baby drink? What does your baby drink from? My baby is eating baby fruit for breakfast and dinner. My baby drinks formula from a bottle.

Do you have any additional questions? Is there any childcare for students in the area?

Notes:

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

Learning Objectives After completing this activity the WIC staff member will be able to identify anthropometric, biochemical, clinical, and dietary indicators for five case studies.

Instructions Ask your mentor or supervisor for a copy of chapter 5 and Nutrition Risk/High-Risk Code Table of the Montana WIC State Plan.

Read each of the case studies on the following pages.

Using the information from the WIC State Plan, identify the anthropometric, biochemical, clinical, and dietary indicators of nutrition risk for each case study.

Write down the nutrition risk(s) on the form.

For those case studies requiring a referral to a RD, write in “referral to the registered dietitian”.

Discuss what you learned with your mentor or supervisor.

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

Case Study 1:

Rainbow Trout 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.
- Her Hct is 31.6%.
- She is currently living in a homeless shelter.
- Her Nutrition Assessment Questions listed the following food intake:
 - 2 slices white toast
 - 12 oz Tang orange drink
 - 1 cup cooked rice
 - 1 cup pinto beans cooked with 2 tablespoons lard
 - 3 corn tortillas
 - 1 12oz can Pepsi
 - 1 small bag of potato chips
 - 2 cheeseburgers
 - 1 cup vanilla ice cream

Anthropometric:
Biochemical:
Clinical:
Dietary:

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

Case Study 2:

Brown Trout 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 lbs.
- She smokes 10 cigarettes/day.
- Her Hgb is 10.8 gm/dL.
- Her Nutrition Assessment Questions listed the following food intake:
 - 2 cups coffee
 - 1 slice chocolate cake with frosting
 - 1 small bag French fries
 - 1 12 oz can diet cola
 - 1 small green salad
 - 1 chicken breast
 - 1 baked potato with 2 tablespoons butter
 - 1 glass of wine

Anthropometric:
Biochemical:
Clinical:
Dietary:

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

Case Study 3:

Cutthroat Trout 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 91st percentile weight for length).
- His Hgb is 10.6 gm/dL.
- He is being fed formula. He consumes about 30oz a day.
- His mother often adds rice cereal to his bottle.

Anthropometric:
Biochemical:
Clinical:
Dietary:

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

Case Study 4:

Tiger Pike is a 25 years 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 Assessment Questions listed the following food intake:
 - 6 oz orange juice
 - 1 cup cooked rice
 - 1 cup stir fried vegetables (boy choy and pea pods) with tofu (8oz)
 - 1 fried egg
 - 1 cup rice noodles
 - 1 tangerine

Anthropometric:
Biochemical:
Clinical:
Dietary:

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

Case Study 5:

Brook Trout is 4 years old. The following information describes her:

- Her weight for height is greater than 98%.
- Her Hct is 32.2%.
- She has Down’s Syndrome.
- She has severe tooth decay and has lost several teeth.
- She drinks from a bottle.
- Her Nutrition Assessment Questions listed the following food intake:
 - 1 cup oatmeal
 - 4 bottles (8oz) of whole milk
 - 1 banana
 - 2 bangs of French fries
 - 12 oz of apple juice
 - 1 cup of vanilla ice cream

Anthropometric:
Biochemical:
Clinical:
Dietary:

Progress Check Answers

Send completed progress check to State WIC Office attention Lacy Little. Fax: 444-0239, email: lalittle@mt.gov or mail Montana WIC, PO Box 202951, Helena, MT 59620

Activity Completion:

Send completed activities to State WIC Office attention Lacy Little. Fax: 444-0239, email: lalittle@mt.gov or mail Montana WIC, PO Box 202951, Helena, MT 59620