



Body Mass Index
A NUTRITION IN-SERVICE FOR STAFF

**“The human body is not a thing or substance, but a
continuous creation.”**
~Norman O. Brown



This institution is an equal opportunity provider.
Washington State WIC Nutrition Program does not discriminate.

For persons with disabilities, this document is available on request in other formats.
To submit a request, please call 1-800-841-1410 (TDD/TTY 711).



DOH 961-994 June 2012

1% Passive
67.5 Readability
6.5 Grade Level

A lesson on using Body Mass Index in WIC.

- Who:** Participants: WIC Staff, range of 2-15 participants with a varying degree of maternal, infant and child nutrition knowledge and WIC experience.
Leader: WIC RD/Nutritionist
- Why:** Body Mass Index (BMI) is a measurement used daily during WIC assessments. WIC staff must fully understand BMI to share and work with clients.
- When:** A monthly in-service that is designed to be 30 to 60 minutes - depending on the discussion and the number of staff attending.
- Where:** The session is designed for a WIC classroom, meeting room or large office depending on the size of the group.
- What:** By the end of this session staff will have:
- Examined how BMI is calculated
 - Compared how BMI calculations are different for children versus adults
 - Identified risks of a high BMI
 - Practiced explaining BMI
 - Explored communicating growth assessment with WIC clients
- Materials Needed:** Sticky Notes, white board or flip chart, markers
- Copies of:
- In-service *Participant Copy*
 - In-service *Feedback Form*
 - Handout (pp. 7 & 8) "*Communicating about the WIC Growth Assessment*"
 - Optional Activity: *Sample growth grid, scenario*. One copy per pair.

Background Please review before leading group:

Reading for Leaders:

- Washington State WIC Manual, Volume 1, Chapter 14 - Nutrition Risk Criteria – Risks related to BMI

For Further review and consult:

- http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_weight/index.htm
- <http://cdc.gov/healthyweight/index.html>
- [Online Module: Anthropometrics, Module 2
http://dohmedia.doh.wa.gov/wictraining/anthropometrics/page3898.html](http://dohmedia.doh.wa.gov/wictraining/anthropometrics/page3898.html)

How:

- Schedule in-service.
- Review background information.
- Review in-service *Leader Copy* (*italicized print indicates leader speaking*).
- Prepare materials needed.
- Have fun!

Introduction / Warm-Up**5 minutes**

Welcome! I will be the leader for this month's nutrition training. Today we'll be talking about Body Mass Index or BMI. BMI is a measurement used daily during WIC assessments. I encourage all of you to participate. Together we can explore our topic and discover strategies to support our WIC clients.

By the end of this session, you will have:

- *Examined how BMI is calculated*
- *Compared how BMI calculations are different for children versus adults.*
- *Identified risks of a high BMI*
- *Practiced explaining BMI*
- *Explored communicating growth assessment with WIC clients*

On a white board or large flip chart paper, write the heading "BMI Knowledge Level." Draw a number line with 0 (Not confident) on one end and 10 (Totally confident) on the other end.

Take a minute to think about BMI. I want you to think about what it represents, and how to explain it. On a scale of one to ten with one being "Not Confident" and ten being "Totally Confident" rank your confidence level regarding your BMI knowledge level. Write your confidence level number on a sticky note and place it on our number line.

Review the confidence level of the group.

Part 1**10 minutes****Understanding Body Mass Index (BMI)**

Listen as I read this information about BMI

BMI is a useful measure of body proportion. It's used to identify underweight, overweight and obesity. BMI is an estimate of body fat and a good gauge of risk for diseases that can occur with more body fat. The higher the BMI, the higher the risk for: heart disease, high blood pressure, type 2 diabetes, gallstones, breathing problems, and certain cancers.

BMI is a mathematical calculation using height and weight. It's the same calculation for both adults and children. The formula for calculating BMI is: weight (pounds) / [height (inches)]² x 703.

$$\text{BMI} = \frac{\text{weight (pounds)}}{\text{Height (inches)}^2} \times 703$$

There are some limitations to BMI including, it may overestimate body fatness in persons with a very muscular build (like athletes), and it may underestimate body fat in older persons and others who have lost muscle.

Find a partner. With your partner take turns using your own words to answer the question “What is BMI?” posed by a WIC client. We will hear a sample of your answers.

Part 2

15 minutes

Comparing BMI for adults versus children

BMI is different for adults and children.

For adults 20 years old and older, we use the following standard weight status categories for both men and women.

(Verbally review the table)

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and Above	Obese

For children ages 2-20 we use BMI-for-age percentiles that are both age and gender specific for children and teens making the criteria different from for children and teens.

The following table shows weight status categories for children by BMI-for-age percentile. (Verbally review the table.)

Weight Status	BMI for age percentile
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

What questions do you have about BMI for adults and children?

Part 3

BMI in WIC risk assessment

- We use it to determine client eligibility for the program.
- It's an indicator of a client's long-term weight-related health.
- These risk are not designated as High Risk

Here are the Nutrition Risk Factors for each of the woman client categories.

Client Category/Timeframe	Status	BMI Value
Pregnant Women		
WIC uses Pre-Pregnancy BMI to determine risk and select the prenatal weight gain grid.	Pre-Pregnancy	< 18.5
	Pre-Pregnancy	25 - 29.9
	Pre-Pregnancy	≥ 30
Breastfeeding Women		
Any time during the 1 year breastfeeding eligibility period	Current	< 18.5
< 6 months postpartum	Pre-Pregnancy	< 18.5
	Pre-Pregnancy	25 - 29.9
	Pre-Pregnancy	≥ 30
> 6 months postpartum	Current	25 - 29.9
	Current	≥ 30
Postpartum Women		
Any time during the 6 month postpartum eligibility period	Current	< 18.5
< 6 months postpartum	Pre-Pregnancy	< 18.5
	Pre-Pregnancy	25 - 29.9
	Pre-Pregnancy	≥ 30

Find the BMI Nutrition Risk Factors for children over 24 months in the table below.

BMI Percentile	High Risk
≤ 5th	Yes
≤ 10th	No
≥ 85th and < 95th	No
≥ 95th	Yes

What do you notice about WIC’s BMI risk factors?

Part 4	10 minutes
---------------	-------------------

Discussing BMI with WIC clients

Now’s our chance to try discussing BMI for ourselves with a role-play. Review the handout “Communicating about the WIC Growth Assessment.” In pairs, we’ll do a role-play. Here’s an example – who will role play with me?

Staff: Would you like to see how Mia’s growth looks today?

Client: Sure.

Staff: This chart compares Mia’s growth to other girls Mia’s age. This centerline shows the average growth and in between these lines (the 10th and the 90th percentiles) is where most girls her age will plot. Here’s where Mia’s measurements were today. When you see this, what do you notice?

Client: It looks like she’s bigger than other kids.

Staff: Could I tell you what research says about this?

Client: Okay.

Staff: Research suggests that kids who measure above the line can really benefit from making small changes to what they eat or drink to give them healthy habits and a healthy weight that lasts a lifetime.

What do you think about that?

Client: I guess that makes sense.

Staff: Would you like to hear what some other parents have done?

The conversation continues according to client's interest.

Find a partner and try a role-play using the words or phrases listed in "Communicating about the WIC Growth Assessment. We will hear a sample of your discussions.

Closing	1 minute
----------------	----------

Thanks for participating in the in-service today. We heard some great discussion and ideas that will help us to better serve our WIC clients.

Please fill out a feedback form – your input is greatly appreciated.

Collect Feedback Forms.

Make any notes you have as a leader.

Review participants' Feedback Forms.

Document this training.

A lesson on understanding Body Mass Index, and explaining BMI to WIC clients.

Learning Objectives

By the end of this session, you will have:

- Examined how BMI is calculated
- Compared how BMI calculations are different for children versus adults.
- Identified risks of a high BMI
- Practiced explaining BMI
- Explored communicating growth assessment with WIC clients

Take a minute to think about BMI. Think about what it represents, and how to explain it.

- On a scale of one to ten with one being “Not Confident” and ten being “Totally Confident” Rank your confidence level regarding your BMI knowledge level.
- Write your confidence level number on a sticky note and place it on our number line.

Part 1	10 minutes
---------------	-------------------

Understanding Body Mass Index (BMI)

BMI is a useful measure of body proportion. It's used to identify underweight, overweight, and obesity. BMI is an estimate of body fat and a good gauge of risk for diseases that can occur with more body fat. The higher the BMI, the higher the risk for: heart disease, high blood pressure, type 2 diabetes, gallstones, breathing problems, and certain cancers.

BMI is a mathematical calculation using height and weight. It's the same calculation for both adults and children. The formula for calculating BMI is: weight (pounds) / [height (inches)]² x 703.

$$\text{BMI} = \frac{\text{weight (pounds)}}{\text{Height (inches)}^2} \times 703$$

There are some limitations to BMI including, it may overestimate body fatness in persons with a very muscular build (like athletes), and it may underestimate body fat in older persons and others who have lost muscle.

Find a partner. With your partner take turns using your own words to answer the question “What is BMI?” posed by a WIC client. We will hear a sample of your answers.

Part 2 **15 minutes**

Comparing BMI for adults versus children

For adults 20 years old and older, we use the following standard weight status categories for both men and women.

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and Above	Obese

For children ages 2-20 we use BMI-for-age percentiles that are both age and gender specific for children and teens making these criteria different from for children and teens.

The following table shows weight status categories for children by BMI-for-age percentile.

Weight Status	BMI for age percentile
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

What questions do you have about BMI for adults and children?

Part 3

BMI in WIC risk assessment

- We use it to determine client eligibility for the program.
- It's an indicator of a client's long-term weight-related health.
- These risk are not designated as High Risk

Here are the Nutrition Risk Factors for each of the woman client categories.

Client Category/Timeframe	Status	BMI Value
Pregnant Women		
WIC uses Pre-Pregnancy BMI to determine risk and select the prenatal weight gain grid.	Pre-Pregnancy	< 18.5
	Pre-Pregnancy	25 - 29.9
	Pre-Pregnancy	≥ 30
Breastfeeding Women		
Any time during the 1 year breastfeeding eligibility period	Current	< 18.5
< 6 months postpartum	Pre-Pregnancy	< 18.5
	Pre-Pregnancy	25 - 29.9
	Pre-Pregnancy	≥ 30
> 6 months postpartum	Current	25 - 29.9
	Current	≥ 30
Postpartum Women		
Any time during the 6 month postpartum eligibility period	Current	< 18.5
< 6 months postpartum	Pre-Pregnancy	< 18.5
	Pre-Pregnancy	25 - 29.9
	Pre-Pregnancy	≥ 30

The BMI Nutrition Risk Factors for children over 24 months are listed in the table below.

BMI Percentile	High Risk
≤ 5th	Yes
≤ 10th	No
≥ 85th and < 95th	No
≥ 95th	Yes

What do you notice about WIC’s BMI risk factors?

Part 4	10 minutes
---------------	-------------------

Discussing BMI with WIC clients

Now’s our chance to try discussing BMI for ourselves with a role-play. Review the handout “Communicating about the WIC Growth Assessment.” In pairs, we’ll do a role-play. Here’s an example – who will role play with me?

Staff: Would you like to see how Mia’s growth looks today?

Client: Sure.

Staff: This chart compares Mia’s growth to other girls Mia’s age. This centerline shows the average growth and in between these lines (the 10th and the 90th percentiles) is where most girls her age will plot. Here’s where Mia’s measurements were today. When you see this, what do you notice?

Client: It looks like she’s bigger than other kids.

Staff: Could I tell you what research says about this?

Client: Okay.

Staff: Research suggests that kids who measure above the line can really benefit from making small changes to what they eat or drink to give them healthy habits and a healthy weight that lasts a lifetime. What do you think about that?

Client: I guess that makes sense.

Staff: Would you like to hear what some other parents have done?

The conversation continues according to client's interest.

Find a partner and try a role-play using the words or phrases listed in "Communicating about the WIC Growth Assessment. We will hear a sample of your discussions.

Closing	1 minute
----------------	----------

Thanks for participating in the in-service today. We heard some great discussion and ideas that will help us to better serve our WIC clients.

Please fill out a feedback form – your input is greatly appreciated.

Collect Feedback Forms.

Make any notes you have as a leader.

Review participants' Feedback Forms.

Document this training.

COMMUNICATING ABOUT THE WIC GROWTH ASSESSMENT

<p>Start with: "Would you like to see how (child's name) growth looks today?" Explain the growth chart if they say "yes".</p> <p>Then explore:</p> <p>Explore – ASK what the client knows or what thoughts they have about the growth chart or if it's okay if you offer them information:</p>	<p><i>"What do you notice?"</i> <i>"What surprises you about this?"</i> <i>"What stands out to you here?"</i> <i>"How do you interpret this?"</i></p>
<p>Ask Permission</p>	<p>"Can I share with you a little information about this?" "Would you like to hear what some other parents have done?" "Could I tell you what WIC says about this?" "Can I share what research says about this?"</p> <p>If client declines (different responses): "Of course. You are the person who knows best what works in your family." "If at another time you would like to hear some suggestions from other parents, please let me know." "OK. You know what your family needs at this time, feel free to let me know if your needs change."</p>

<p>Offer – Neutrally and non-judgmentally</p>	<p><i>“Research suggests...”</i> <i>“Studies have shown...”</i> <i>“Others have benefited from...”</i> <i>“Folks have found...”</i> <i>“Other parents say...”</i></p> <p>Avoid “I...” and “You...”</p>
<p>Explore – The patient’s interpretation</p>	<p><i>“What does this mean to you?”</i> <i>“How does that fit for you?”</i> <i>“What do you think about that?”</i> <i>“How can I help?”</i> <i>“Where does this leave you?”</i></p>
<p>Thank you</p>	<p><i>“Thank you for sharing with me today.”</i></p>