

## Consistent Education Messages: Childhood Overweight and Obesity Guide for BMI Assessment and Effective Communication with Families.

### Background

In the US the prevalence of childhood obesity has increased dramatically during the past three decades. In 1980, for children ages 2 to 5 years old the prevalence of obesity was 5%, which more than doubled by 2010 to 12.1%. CT WIC program State Wide data report for September 2014 participants for same group shows overweight at 14.6% and obesity at 15.3%. Body Mass Index percentiles is the preferred non-invasive measure to determine weight status.

**BMI Weight Classification** (based on 2000 CDC age- and sex-specific growth charts for children 2 to 20 years of age):\*

Category	Children and Adolescent (BMI for Age Percentiles Range)	Adults (BMI)
Underweight	Less than the 5 <sup>th</sup> percentile	Less than 18.5 kg/m <sup>2</sup>
Healthy weight	5 <sup>th</sup> percentile to less than the 85 <sup>th</sup> percentile	18.5 to 24.9 kg/m <sup>2</sup>
Overweight	85 <sup>th</sup> percentile to less than the 95 <sup>th</sup> percentile	25.0 to 29.9 kg/m <sup>2</sup>
Obese	Equal to or greater than the 95 <sup>th</sup> percentile	30.0 kg/m <sup>2</sup> or greater

\*This chart is adopted from Dietary Guidelines for Americans, 2010 document.

### How to calculate BMI

- Follow WIC Protocols for Measuring Height and Weight
- Enter into computer Height and Weight to get BMI calculation.
- If computers are down the following are the mathematical formulas to calculate BMI:
  - Weight in kilograms divided by the height in meters squared (m<sup>2</sup>);
  - OR weight in pounds divided by height inches squared (in<sup>2</sup>) by 703.

### How to effectively communicate growth with WIC families

The subject of overweight and obesity should be discussed using verbal expressions that convey empathy, and builds confidence or motivation so the family is not offended or feel attacked. Questions should be asked to ensure families provide honest answers (avoiding leading questions). Some closed ended questions are necessary, but should be followed by open ended, non-leading questions. Learning and practicing ‘Motivational Interviewing’ is an important tool to evaluate the individual’s or family’s stage of change and facilitates goal setting, and achievable action plans. (Refer to ‘Motivational Interviewing Guidance’ – Local agency Resource ReNEW 2.0 Education Subcommittee)

Example of a leading question: Does your family have a ‘bad habit’ of eating in front of the TV? (If you ask in this way, identifying that it is not a good practice to eat in front of the TV; the person will be tempted to answer “no”, when in reality the honest answer is “yes”).

Example of a non-leading question: Where does your child eat meals at home?

### **Why is this important?**

It is important to identify the factors that contribute to overweight and obesity to tailor nutrition education to the individual and specific needs of the families. WIC participants need to be provided with honest communication and be motivated to change mealtime and food behaviors in a respectful way building trust between the family and the WIC Nutritionist and their health care professional.

By addressing behaviors that contribute to children developing the medical conditions of overweight and obesity we are helping to prevent chronic health problems and reduce or prevent medical complications later on in life such as metabolic syndrome, glucose intolerance depression, feelings of humiliation and mistreatment, among others.

WIC staff needs to feel comfortable when conversing with families. It is important to utilize evidenced based research when speaking with WIC families about weight issues that will likely lead to positive health outcomes and ultimately impact our WIC family's success and our State Objectives.

### **WIC Objectives**

- Determine Weight Status of Participant and discuss BMI chart with Participant's family. Weight Status assessment of participants includes infants up to 24 months and conversation should be initiated during early stages in the child's life (Refer to the following State guide: "Consistent Breastfeeding Education Messages: Supporting Breastfeeding Using the WHO Growth Standards 0-24"). For the purpose of this guide, BMI is calculated taking anthropometric measurements in children 2 years old and older, and plotting on standard growth chart. (Share BMI graph with family member, caretaker and explain the meaning of it).
- Perform an assessment of food intake habits and physical activities by using an approved questionnaire.
- Utilize the nutrition assessment form to determine food behaviors that contribute to overweight or obesity.
- Ask permission to discuss findings and provide recommendations.
- Get the family's point of view and determine readiness for eating behavior changes. Family events may cause weight changes, therefore, when looking at the growth chart make the connection between causative factors. Focus should be on improving situations that are within immediate parental control.
- Set a nutrition action plan that the family feels is achievable and that can be started within a week.
- Determine frequency of visits to ensure growth is going in the right direction, improving BMI.

### **'Possible' Family Learning Objectives**

After discussion of weight status of a child, parents or caretaker will be able to:

1. Identify weight status of their child, using CDC growth chart, or BMI weight ruler.
2. List two ways in which they can be role models for their children.
3. Identify two community resources that contribute to decrease overweight risk.
4. Identify one or two food behavior changes that help to decrease weight gain risk.

5. Identify one or two physical activities that help to decrease weight gain risk.
6. Identify one or two sedentary activities that increase risk of weight gain.
7. Set a realistic action plan for change.

**Key Educational Messages or Questions to ask when providing a child's BMI/growth information:**

- We are interested in your child's health; the purpose of the WIC program is to support you in meeting your child's health and nutritional needs.
- We are also interested in the weight status of your child; so we may support your child's healthy growth.
- Currently we determine the weight status of your child using the Body Mass Index calculation. This is a way of looking at weight while taking into consideration how tall someone is.
- At this moment your child's BMI is in the range where we start to be concerned about extra weight that may lead to health problems.
- Before going further, I would like to know what concerns, if any, you have about your child's weight.
- How do you feel about discussing your child's eating habits? TV watching? And physical activity?

Follow with other Nutrition and Eating & Physical Activity Questions Refer to Appendix 1 and 2

**Nutrition, Food and Mealtime: Key educational messages**

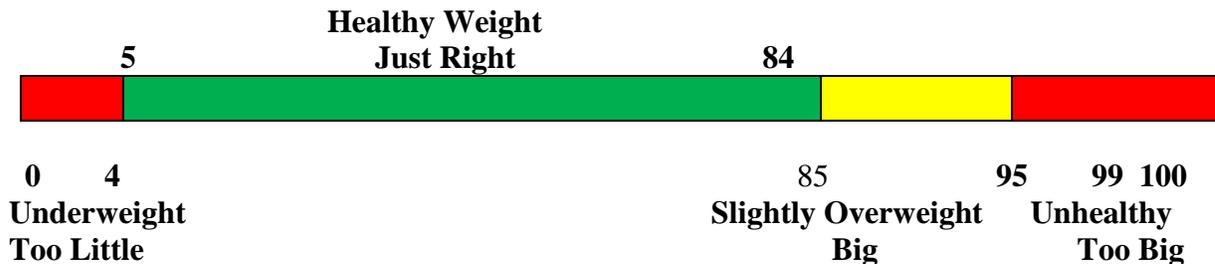
- It's important to have a schedule and meal time routine. Snacks are important too. When the children get home hungry, have fruits and vegetables ready to eat.
- Take advantage of Farmers' Market season and grocery stores. Buy produce in season.
- Aim to eat meals together, at a table and not in front of the TV or computer. If a table is not available, it is important that the family eats together with no TV or other distractions.
- Family meal time can be an opportunity to share happy moments. Sit together for meals and share those moments. Parents can be a role model for their children by eating a healthy diet. Core message to parent: "They learn from watching you. When you eat fruits and vegetables, your kids will too."
- Limit 100% juice to 4 ounces a day. If the child drinks juice in school, offer low fat milk or water with the meals. Water is best for children.
- Give yourself and those you love the goodness of whole grains. Make at least half of the grains you eat whole grains- such as bread, tortillas, pasta and cereals. Whole grains are good for your heart and digestion, maintain a healthy weight, and for overall health. Start them early with whole grains. It's easy to get your kids in the habit of eating and enjoying whole grains if you start when they are young. Whole grains give your kids B vitamins, minerals and fiber to help them be strong and healthy.
- Use low fat cooking methods such as baking, boiling, steaming, poaching, grilling, and roasting.

### Physical Activity Key educational messages

- Increase physical activity and fitness: Keep moving! Walk to preschool or daycare, walk the dog, take your child to the park, zoo, or museums. Check your local library for events' entrance discounts. Also check your local school or recreation department for free or reduced sports or fitness opportunities for your child.
- Encourage active play and introduction to sports.
- Play or keep moving at least 1 hour a day. This could be broken up throughout the day.
- Reduce TV, computer time or smart phone time to 2 hours or less a day.
- Parents and friends are role models. Be physically active.
- Any activity counts! Enjoy fun games and activities!

### The BMI Ruler

The use of the BMI ruler is a recent approach to facilitate communication with families in a considerate, caring way. After determining BMI percentile, family is introduced to 'My weight ruler', and rather than using the medical terminology utilized to describe weight status (underweight, normal weight, overweight, obesity, or severe obesity), is replaced with acceptable terms tested with the target population, (Too Little, Just Right or Healthy Weight, Big or Slightly overweight, and Too Big or Unhealthy) to describe weight status.



### Existing ReNEW 2.0 Documentation

The following lesson plans are available for CT WIC nutrition staff professionals

- Introduction To Foods
- Physical Activity- Playing
- Fruits and Vegetables for Children
- i-PAUSE guidance

CT WIC Program i-PAUSE Guidance document was developed by the ReNEW 2.0 Documentation subcommittee. This guidance was developed to assist local agency Nutritionists in partnering with the participant to improve the quality and content of nutrition education and ensure a participant centered focus.

[http://www.ct.gov/dph/lib/dph/wic/training\\_resources/14-027\\_attachment\\_i-pause\\_guidance\\_document.pdf](http://www.ct.gov/dph/lib/dph/wic/training_resources/14-027_attachment_i-pause_guidance_document.pdf)

## References

1. Cloutier MM<sup>1</sup>, Lucuara-Revelo P, Wakefield DB, Gorin AA. My Weight Ruler: a simple and effective tool to enhance parental understanding of child weight status. Prev Med.2013 Nov;57(5):550-4. doi: 10.1016/j.jpmed.2013.07.014. Epub 2013 Jul 17.
2. Deanna M. Hoelscher, PhD, RD, LD and Academy Position Committee; Position of the Academy of Nutrition and Dietetics: Interventions for the Prevention and Treatment of Pediatric Overweight and Obesity. 2013, Vol.13 (10): 1375-1394.
3. Jennifer L. Baker et al. Evaluation of the Overweight/Obese Child – Practical Tips for the Primary Health Care Provider: Recommendations from the Childhood Obesity Task Force of the European Association for the Study of Obesity. 2010. Vol. 3: 131 – 137.
4. <http://www.massgeneral.org/psychiatry/research/empathyhome.aspx>
5. Iowa Department of Public Health. What school nurses need to consider in assessing and communicating with overweight/obese students. Updated 2013:1-29.
6. Sarah E. Barlow, MD MPH and the Expert Committee. Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. Pediatrics. 2007. Vol. 120 (Supplement 4): 165 – 192.
7. Position Paper. Position of the Academy of Nutrition and Dietetics: Nutrition Guidance for Healthy Children Ages 2 to 11 Years. Journal of the Academy of Nutrition and Dietetics. 2014; 114: 1257-1276.
8. USDA/DHHS Advisory Committee Members; Dietary guidelines for Americans 2010.

## Helpful Web Resources

### **For Participants:**

#### **Subject: Daily food plan/preschoolers**

<http://www.choosemyplate.gov/health-nutrition-information-preschoolers/daily-food-plan-preschoolers.html>

#### **Subject: Fitness/Exercise**

<http://www.eatright.org/resource/fitness/exercise/family-activities/family-exercise-for-every-season>

<http://www.letsmove.gov/move-everyday>

<http://www.letsmove.gov/parents>

<http://www.letsmove.gov/kids>

#### **Subject: Fruits and Vegetables**

<http://www.letsmove.gov/try-new-fruit-or-veggie>

#### **Subject: Healthy Dairy**

<http://www.newenglanddairyCouncil.org/healthy-living/dairy-your-health/children/>

<http://www.choosemyplate.gov/downloads/DGTipsheet5GotYourDairyToday-sp.pdf>

<http://www.eatright.org/resource/food/vitamins-and-supplements/nutrient-rich-foods/milk-more-important-than-you-think>

#### **Subject: My Plate**

<http://www.choosemyplate.gov/healthy-eating-tips/ten-tips.html>

<http://snap.nal.usda.gov/resource-library-education-materials-fns/myplate-may-family#hanoutsenglish>

<http://www.choosemyplate.gov/print-materials-ordering/MultipleLanguages.html>

**Subject: Snacks**

<http://www.eatright.org/resource/food/planning-and-prep/snack-and-meal-ideas/25-healthy-snacks-for-kids>

**Subject: Weight**

<http://www.eatright.org/resource/health/weight-loss/overweight-and-obesity/why-is-my-child-overweight>

Subject: Holidays

<http://www.eatright.org/resource/health/lifestyle/holidays/holiday-meals-made-healthy>

**For Healthcare Professionals:**

**Subject: BMI Calculator**

For child and adolescent BMI calculator: <http://apps.nccd.cdc.gov/dnpabmi/>

**Subject: Core nutrition messages**

<http://www.fns.usda.gov/core-nutrition/core-nutrition-messages>

<http://www.choosemyplate.gov/print-materials-ordering/selected-messages.html>

**Subject: Dietary Guidelines**

[http://www.choosemyplate.gov/information-healthcare-professionals.html#dietary\\_guidelines](http://www.choosemyplate.gov/information-healthcare-professionals.html#dietary_guidelines)

**Subject: Education materials**

[www.cdph.ca.gov/programs/wicworks/pages/wiceducationmaterialschildren.aspx](http://www.cdph.ca.gov/programs/wicworks/pages/wiceducationmaterialschildren.aspx)

<http://www.nationaldairycouncil.org/EducationMaterials/HealthProfessionalsEducationKits/Pages/WIC.aspx>

**Subject: My Weight Ruler**

<http://www.ncbi.nlm.nih.gov/pubmed/23872428>

**Subject: Position papers**

<http://www.eatrightpro.org/resource/practice/position-and-practice-papers/position-papers/nutrition-guidance-for-healthy-children-ages-2-to-11-years>

**Subject: Research**

<http://www.nationaldairycouncil.org/Research/ResearchSummaries/Pages/DairyandHealthyWeightResearchSummary.aspx>

**Subject: Webinars**

<http://www.nationaldairycouncil.org/ChildNutrition/Pages/KidsareDrinkingWhatWebinar.aspx>

<http://www.nationaldairycouncil.org/ChildNutrition/Pages/Kids-Eat-Right-Webinar-Module-1.aspx>

**APPENDIX 1**

<b>Nutrition Questions</b>	<b>Objectives</b>
<p>At what times are meals/snacks eaten throughout the day? How many meals per day? Where are meals eaten while at home?</p> <p>Tell me about the beverages your child drinks: What type? How much?</p> <p>Which fruits does your child eat? Which vegetables does your child eat? How often?</p> <p>In regards to starchy foods (such as rice, pasta, potatoes), show me about how much your child eats? Use measuring cups to assess portion sizes served and/or amount consumed. Or: In comparison with this food model: same, more or less?</p> <p>What food does your child eat in school or with a caretaker?</p> <p>What do you think could be contributing to his/her weight gain?</p>	<p>To assess meal time structure</p> <p>Determine sweetened beverages amount</p> <p>Determine &amp; encourage healthy eating habits</p> <p>Assess portion size to determine accuracy of what is reported</p> <p>Ask food choices during school/caretaker time</p> <p>Explore awareness of eating behavior problem</p>

**APPENDIX 2**

<b>Physical Activity Questions</b>	<b>Objectives</b>
<p>Does your child watch TV? Yes For how long? _____ How many TV shows? _____ No</p> <p>Does your child play video games? Yes How long? _____ No</p> <p>Does your child watch smart phones videos or play computer games: Yes How long? _____ No</p> <p>What activities does your child participate in? For how long?</p> <p>What activities does the family enjoy together?</p>	<p>Determine hours per day of sedentary activities</p> <p>Determine playground activities, Active running? Playing catch? Jumping? Introduction to sports, such as swimming or other active outdoor/indoor activities.</p> <p>Assess family activities</p>