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# Counter Details

The Educational Difference

June 2010

## Objectives

After reading this issue, the clinician should be able to:

- Identify the scope of the problem with pediatric obesity management.
- Translate obesity associated co-morbidities (diabetes, cardiovascular disease, depression, sleep apnea) and the application to their practice and propose strategies to foster prevention and early identification in children.
- Identify tools and strategies to communicate the health lifestyle message effectively, taking into consideration cultural and literacy barriers.
- Assess and encourage the impact of the new Women, Infants, and Children (WIC) food packages on childhood obesity and encourage breastfeeding if appropriate.
- Review the Medicaid Nutrition and Weight Management Services for Children under 21 years of age.

Faculty information can be found on page 2.

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The Activity Development Team members have no relevant relationships to disclose.

## Pediatric Obesity Update 2010

The Pennsylvania Department of Health and the Pennsylvania Medical Society are pleased to present you with the *Pediatric Obesity Management 2010* monograph. This monograph addresses the childhood obesity epidemic in America. The life-threatening consequences of this epidemic create a compelling and critical call for action that cannot be ignored. This effort demonstrates our commitment to providing the latest recommendations you will need to tackle childhood obesity in your practice.

Recommended strategies are based on the U.S. Surgeon General's Childhood Obesity Initiative, which focuses on effective policies and tools to empower parents and caregivers to make healthy choices for their families and to increase opportunities for physical activity by strengthening the role of health care providers. Parents and caregivers often do not realize when a child is overweight or obese. In fact, studies have consistently shown that parents do not accurately perceive the weight of their overweight or obese child. To inform and make potentially serious health issues salient to parents and caregivers, health care providers can counsel on healthy behaviors, such as increasing fruit and vegetable intake and physical activity time and limiting consumption of high calorie, low nutrition foods and sugar-sweetened beverages. Providers should also be able to refer parents and caregivers to the appropriate community resources.

The overall goal is to prevent and control obesity and other chronic diseases through healthful eating and physical activity. This monograph is one step in reaching our goal. Working together, government agencies, health professionals, medical associations and patients can reduce the burden of obesity-related diseases in Pennsylvania. We trust you will find this monograph a useful tool in your fight to address childhood obesity.

Sincerely,

James A. Goodyear, MD  
President, Pennsylvania Medical Society

Everette James  
Secretary of Health



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DEPARTMENT OF HEALTH

## Tackling Obesity: What the Provider Needs

by Sandra Gibson Hassink, MD

**T**hirty-two percent of American children can be classified as being overweight or obese. This means that almost one-third of pediatric patients we encounter in our offices are at risk for current and future chronic illnesses that will significantly increase morbidity and in some cases mortality. The most recent prevalence rates show that 16.3 percent of children aged 2-19 had a BMI >95 percent and 11.3 percent had a BMI >97 percent. These rates have tripled over the past three decades. Recent data has shown that although obesity among children increased from 1999-2004, this was the first time period in 30 years that the increase did not reach statistical significance. If this trend holds true, this may be the first indication that some obesity prevention strategies may be working.<sup>1</sup> This potential trend makes pressing on with prevention even more important, but in addition we have to continue to focus on early intervention and obesity treatment because obesity still represents a threat to the current and future health and well being of children. Pediatricians and primary care physicians who care for children are on the front lines of prevention and treatment efforts.

An expert panel was convened in 2005 by the American Medical Association, the Health Resources and Service Administration, and Centers for Disease Control

and Prevention. It included representatives from 15 medical societies, including the American Academy of Pediatrics and the National Medical Association. The purpose was to update the previous expert recommendations on childhood obesity from 1998 and to provide guidance for primary care practitioners for the staged treatment of childhood obesity from prevention to treatment. The Expert Committee report identified strategies for assessment, prevention, and treatment that updated previous reports and serves as a framework for practitioners as they integrate the work of caring for obese children into their practices.<sup>2</sup>

Obesity is defined as excess body fat and excess adipose tissue mass, which constitutes a significant health risk. Adipocytes can no longer be thought of as a passive repository of stored triacylglycerol and source of free fatty acids,<sup>3</sup> but have been found to be literally factories of enzymes, cytokines, growth factors, and hormones involved in overall energy homeostasis.<sup>4</sup> In addition to these factors, adipocytes also produced proinflammatory factors, such as TNF- $\alpha$ , IL-6, leptin, plasminogen activator inhibitor-1 (PAI-1), angiotensinogen, resistin, and C-reactive protein (CRP), which contribute to cardiovascular and metabolic disease risk.<sup>3</sup> Comorbidities of obesity

are not restricted to adults. Table 1 (see page 3) lists comorbidities, which require identification and treatment in childhood. In addition to these comorbidities, there are several emergency conditions that result from obesity. These are rare but can be life threatening when they occur, and include cardiomyopathy of obesity, diabetic ketoacidosis, hyperosmolar hyperglycemic coma, and pulmonary emboli.

The first step in obesity prevention, intervention, and treatment is to measure height and weight and calculate Body Mass Index (BMI). BMI is defined as weight (in kilograms) divided by the square of height (in meters). BMI levels correlate with adiposity and therefore are a suitable measure for use as an initial screen to determine further evaluation. In contrast to adult values, BMI changes with age and gender across childhood and adolescence. Figure 1 (see page 3) illustrates a BMI chart for boys age 2-20 years and Figure 2 (see page 4) illustrates one for girls age 2-20 years.

Once BMI is obtained for each child, the value should be plotted on the appropriate BMI graph and a percentile recorded. Table 2 (see page 5) shows the recommended classification for BMI values.

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## FACTULTY

*Faculty and all others who have the ability to control the content of continuing medical education activities sponsored by the Pennsylvania Medical Society are expected to disclose to the audience whether they do or do not have any real or apparent conflict(s) of interest or other relationships related to the content of their presentation(s).*

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## Tackling Obesity: What the Provider Needs

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The change in classification from “at risk for overweight” to “overweight” at the 85 percentile – 94 percentile and from “overweight” to “obese” >95 percentile was recommended to bring terminology in line with disease-based risk and with adult classifications. Clearly, when discussing weight status with patients and families, emphasis should be placed on health, well being, and risk with sensitivity to stigmatization or blame. These classifications determine starting points for further evaluation, which include family history, review of systems, physical examination, assessment of dietary and activity habits, evaluation of motivation, and desire to change. All of which help individualize the intervention.

For children under two years of age, weight for length is used instead of BMI. Figure 3, Weight-for-length percentiles: Girls, birth to 36 months is found on page 5.

Additional CDC Growth Charts are found at: <http://www.cdc.gov/growthcharts/>.

There is focused effort to identify intrauterine and early infancy predictors of risk for later obesity. Reduced birth weight has been associated with central adiposity increases in type II diabetes and cardiovascular disease in adults<sup>5,6</sup>. On the other end of the spectrum, infants born to diabetic or obese mothers

tend to be larger and are at increased risk for later obesity and diabetes.<sup>7</sup> In addition, maternal smoking has been found to increase the risk for both childhood and adult obesity.<sup>8</sup> Breastfeeding has been associated with a protective effect on obesity<sup>9</sup> and should be encouraged for all infants.

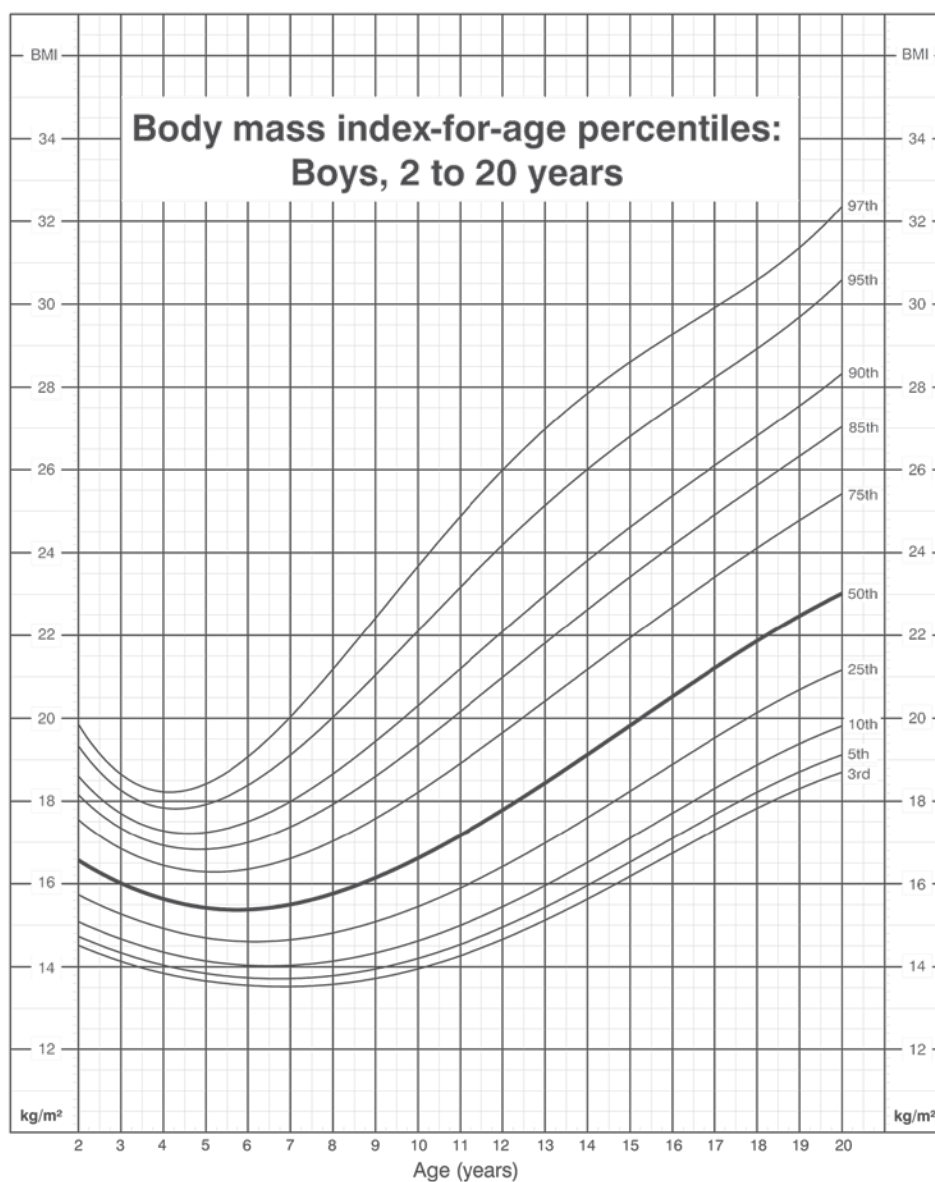
Assessment for obesity, in addition to calculating and classifying BMI, should include a review of family history focused on obesity and related comorbidities, as well as a thorough review of systems, Table 3 (see page 12) and physical

*continued on page 4*

**Table 1: Obesity Related Comorbidities<sup>2</sup>**

<b>Neurologic</b> —Pseudotumor Cerebri
<b>Respiratory</b> - Obstructive Sleep Apnea Syndrome, Restrictive lung disease, Worsening asthma
<b>Cardiovascular</b> —Hypertension, Dyslipidemia, Left ventricular dysfunction
<b>Metabolic</b> —Impaired glucose tolerance, insulin resistance, type 2 diabetes, premature adrenarche polycystic ovarian syndrome, pubertal acceleration or delay
<b>Gastrointestinal</b> —Nonalcoholic fatty liver disease including nonalcoholic steatohepatitis, Gastroesophageal reflux
<b>Musculoskeletal</b> —Blount’s disease, Slipped capital femoral epiphysis
<b>Psychological</b> —Low self esteem, depression, anxiety
<b>Skin</b> —Acanthosis Nigricans, Hidradenitis Suppurativa, inflammation, irritation

**Figure 1: CDC Growth Charts - United States**



SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).



## Tackling Obesity: What the Provider Needs

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examination, Table 4 (see page 13), focused on obesity related complications and comorbidities.

### Laboratory Assessment

Recommended laboratory assessment<sup>10</sup> for children who are overweight is a fasting lipid profile and if other risk factors, including a family history of obesity related diseases, a fasting glucose, ALT, and AST. If child is obese, a fasting lipid profile and fasting glucose, ALT and AST, any

other labs indicated by review of systems, or physical examination are indicated.

### Obesity Etiology

There is clearly a genetic predisposition to obesity, which interacts with an activity and nutritional environment, to produce increased adiposity. Because of the complexity of this interaction, prevention and treatment pathways are grounded in the chronic care model. This model incorporates the dynamic interaction between the clinical team and patient/family with the necessary wider support of the health care system and community. Since lifestyle change forms the basis for obesity prevention and treatment, the

more venues in which healthy lifestyle messages and support occurs the more likely there will be sustained change.

Obesity prevention and treatment can be seen as an intervention aimed at preventing or changing “high risk” nutrition and activity behaviors. The following behaviors are the specific ones that have been recommended by the Expert Panel to be incorporated into prevention and treatment interventions.

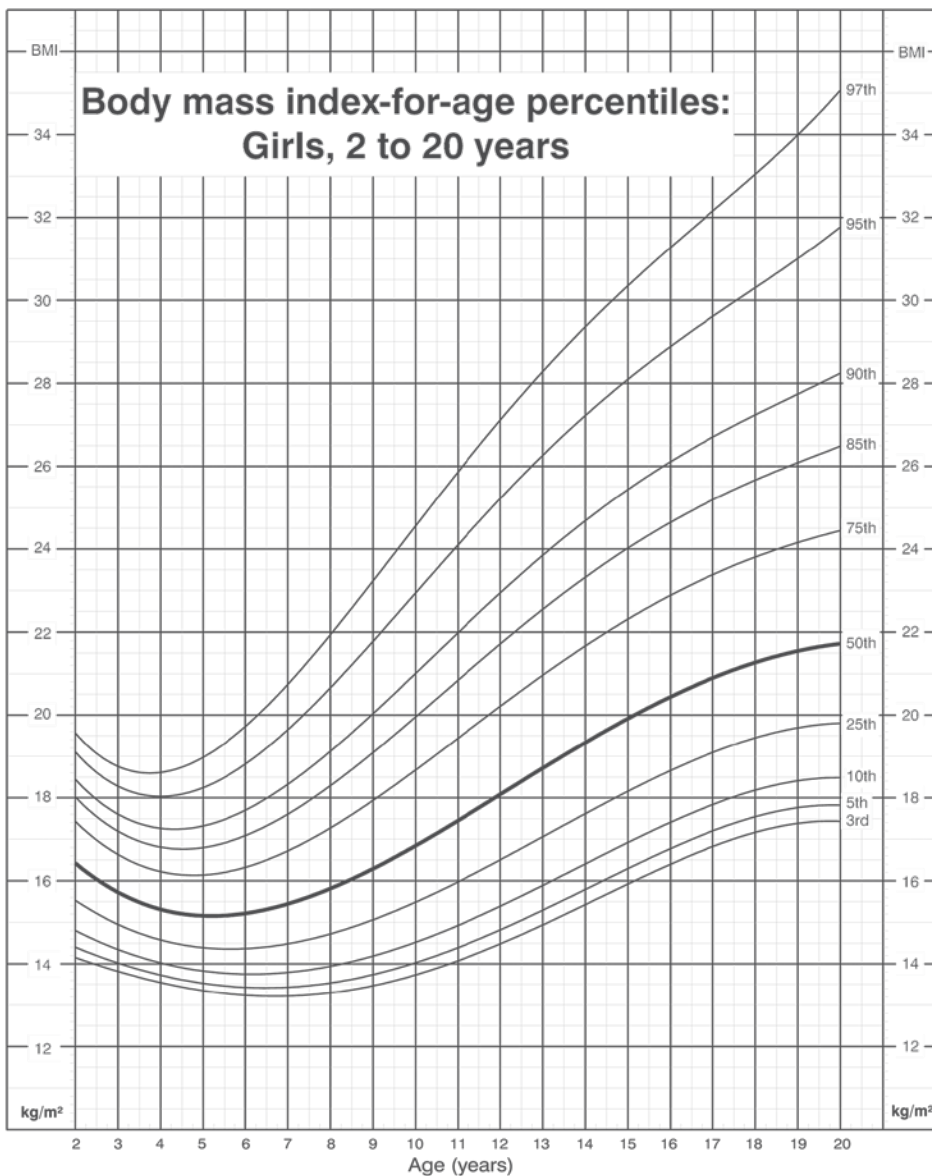
Evidence supports the following,<sup>2</sup> utilizing the following rating categories:

- Consistent evidence **(CE)**
  - Mixed evidence **(ME)**
  - Suggests studies have not examined the association of the recommendation with weight or energy balance, however, the expert committee thinks that these recommendations could support the achievement of healthy weight
1. Limiting consumption of sugar-sweetened beverages **(CE)**
  2. Encouraging consumption of diets with recommended quantities of fruits and vegetables; nine servings of fruits and vegetables/day are recommended by [www.mypyramid.gov](http://www.mypyramid.gov). Many states have begun initiatives using five servings as a starting point. **(ME)**
  3. Limiting television and other screen time, by allowing a maximum of two hours of screen time per day **(CE)** and removing televisions and other screens from children’s primary sleeping area **(CE)**
  4. Eating breakfast daily **(CE)**
  5. Limiting eating out at restaurants, particularly fast food restaurants **(CE)**
  6. Encouraging family meals in which parents and children eat together **(CE)**
  7. Limiting portion size **(CE)**

The prevention writing group also suggests, on the basis of analysis of available data and expertise, the following behaviors:<sup>2</sup>

- 1) Eating a diet rich in calcium

**Figure 2: CDC Growth Charts - United States**



SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).



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## Tackling Obesity: What the Provider Needs

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- 2) Eating a diet high in fiber
- 3) Eating a diet with balanced macronutrients
- 4) Encouraging exclusive breast-feeding to six months of age and maintenance of breastfeeding after introduction of solid food to 12 months of age and beyond
- 5) Promoting moderate to vigorous physical activity for at least 60 minutes each day
- 6) Limiting consumption of energy-dense foods

Based on these lifestyle recommendations, a staged approach is recommended to prevention and treatment.<sup>2</sup>

### Prevention and Treatment

Universal assessment for obesity risk is recommended by the Expert Panel<sup>2</sup> with BMI calculated and classified at least once per year for every child.

### Prevention—Primary Care Provider

Universal attention to age appropriate healthy nutrition and activity should be a part of every child's routine care. The American Academy of Pediatrics' Clinical Decision Support<sup>10</sup> chart recommends using the following mnemonic to help parents and families remember this targeted health message:

- 5 **Eat fruits and vegetables at least 5 or more times on most days**
- 2 **Limit screen time unrelated to school to 2 hours or less/day**
- 1 **Get 1 hour or more of moderate to vigorous physical activity every day and 20 minutes of vigorous activity at least 2 times/week**
- 0 **Drink less sugar. Try water and low-fat milk instead of sugar sweetened drinks**

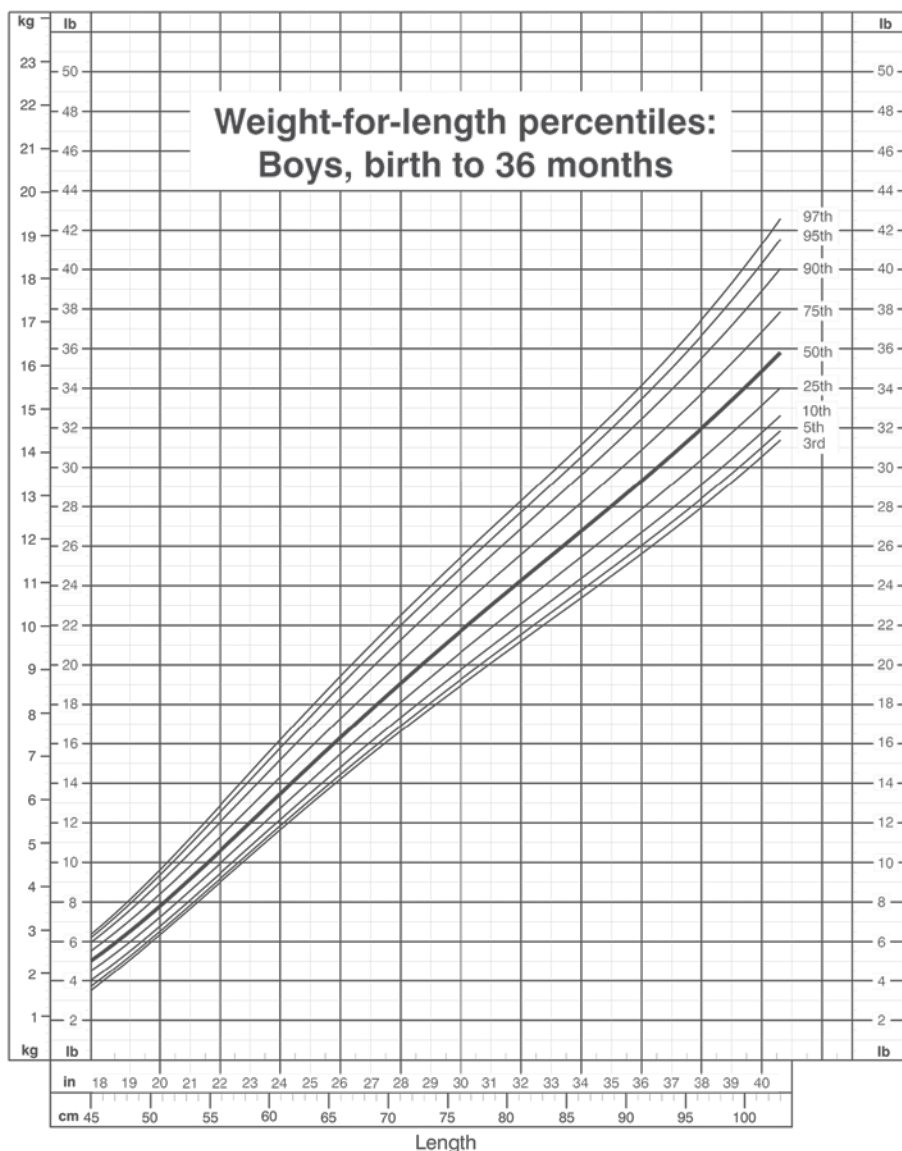
### Prevention Plus—Primary Care Provider

The **5210 message** should be part of counseling on dietary habits and physical activity. In addition, behavioral counseling should include:

- 1) eating a daily breakfast;
- 2) limiting meals outside the home;
- 3) family meals five to six times/week; and
- 4) allowing the child to self regulate at meals without overly restrictive behavior.

*continued on page 6*

**Figure 3: CDC Growth Charts - United States**



Revised and corrected June 8, 2000.  
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).



**Table 2: BMI Classification by Percentile<sup>2</sup>**

Classification	BMI percentile
Underweight	<5 percentile
Normal weight	5 percentile-84 percentile
Overweight	85 percentile-94 percentile
Obese	>95 percentile
Severe obesity	>99 percentile

## Tackling Obesity: What the Provider Needs

*continued from page 5*

The goal should be weight maintenance with growth resulting in a decreased BMI. Follow up should be monthly. After three to six months, if there is no improvement in BMI/weight, status advances to the next stage— **Structured Weight Management**.

### Structured Weight Management— Primary Care Provider with Appropriate Training.

Build on previous messages and add:

- 1) a plan for utilization of balanced macronutrient diet emphasizing low amount of energy dense foods;
- 2) increased structured daily meals and snacks;
- 3) supervised active play of at least 60 minutes/day;
- 4) screen time of one hour or less/day; and
- 5) increased monitoring (screen time, physical activity, dietary intake, restaurant logs) by provider, patients, and family.

The goal is weight maintenance resulting in a decreasing BMI with age and increasing height weight loss, not to exceed one lb/month in children 2-11 years or an average of two lb/week in older overweight /obese children and adolescents with follow up monthly. If no improvement in BMI/weight after three to six months, patient should be advanced to **Comprehensive Multidisciplinary Intervention**.

### Comprehensive Multidisciplinary Intervention—Weight Management Clinic with Multidisciplinary Team

Build on previous interventions.

Behavioral counseling should include:

- 1) structured behavioral modification program, including food and activity monitoring and development of short term diet and physical activity goals; and
- 2) involvement of primary caregivers/families for behavioral modification in children younger than 12 years and training of primary caregivers/families for all children.

Goals are weight maintenance or gradual weight loss until BMI <85 percentile not to exceed one lb/month in children ages two to five years or two lbs/week in older obese children and adolescents.

### Tertiary Care Interventions—Hospital Based with Expertise in Childhood Obesity for Selected Patients

Recommended for children with BMI >95 percentile with significant comorbidities unsuccessful with previous stages and children with BMI >99 percentile who have shown no improvement under comprehensive multidisciplinary intervention. This intervention involves a multidisciplinary team with expertise in childhood obesity, operating under a designated protocol, continued diet, and activity counseling, consideration of possible additions as meal replacement, very low calorie diet, medication, and surgery.

### Tools for Change

Helping patients and families make change involves establishing good communication and using a team approach. Approaching patients and families with care and empathy, choosing language

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**Table 3: Review of Symptoms<sup>10</sup>**

Symptoms	Possible Comorbidity
Anxiety, school avoidance, social isolation, sleepiness or wakefulness	Depression/anxiety
Severe recurrent headaches, visual disturbance	Pseudotumor cerebri
Shortness of breath, exercise intolerance	Asthma, lack of physical conditioning
Snoring, apnea, daytime sleepiness, enuresis	Obstructive sleep apnea, obesity hypoventilation syndrome
Abdominal pain	Gastroesophageal reflux disease, constipation, gall bladder disease, non-alcoholic fatty liver disease
Hip pain, knee pain, walking pain	Slipped capital femoral epiphysis, Blount disease, musculoskeletal stress from weight
Foot pain	Musculoskeletal stress from weight, may be barrier to physical activity
Irregular menses	Polycystic ovary syndrome
Primary amenorrhea	Polycystic ovary syndrome, Prader Willi Syndrome
Polyuria, polydipsia, or unexpected weight loss	Type 2 diabetes mellitus, may also be asymptomatic
Tobacco use	Increased cardiovascular risk, may be used as form of weight control

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## Tackling Obesity: What the Provider Needs

*continued from page 6*

that is non-judgmental, such as “healthier food” instead of “bad food” and conveying respect, are key elements in establishing a relationship that can foster change.<sup>10</sup> Techniques such as motivational interviewing can be helpful in helping to uncover reasons the family/patient may have to make lifestyle change. This technique involves providing information, such as BMI, eliciting parent’s or patient’s concerns, reflecting on the concerns and behaviors, which contribute to weight gain and provide nonjudgmental feedback on behaviors that may need to be improved. Ask which, if any, behaviors family/patient may want to work on to change. Help set agenda and goals for change with family. Tools such as a 10 point scale can be used to assess motivation for change and confidence in success. These can help continue the conversation about strengths and barriers to change. Summarize possible changes and make a plan with patient/family for follow up.

### Case Study 1

H.R. is a 15-year-four-month-old white female who is in your office for her annual visit. Her height is 167 cm (77 percentile), her weight is 99.7 kg (>95 percentile). You calculate her BMI to be 35.75, which is over the 99 percentile for age and gender. You mention that you have calculated H.R.’s BMI from her height and weight and her BMI is in a range where you are concerned about current or potential health problems. You ask if H.R. or her mother have any concerns about her weight/BMI. H.R. says that she would like to lose weight to improve her athletic performance. Her mother is worried about the health effects of excess weight, particularly since H.R.’s father, who is overweight, was recently diagnosed with hypertension. Mother also notes that H.R.’s weight escalated above the 95 percentile the summer she spent with her maternal grandmother at age nine.

In addition to her father’s hypertension, family history is positive for hypertension and stroke in several of her father’s uncles, diabetes in a maternal aunt, and

two paternal aunts who weigh over 300 lbs. Review of systems is positive for Osgood Schlatter disease in the past and shortness of breath during exercise consistent with possible exercise induced asthma as well as irregular

menstrual periods. Physical examination shows a blood pressure of 104/78 mm/Hg and mild acanthosis nigricans.

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**Table 4: Physical Examination<sup>10</sup>**

System	Findings	Possible Comorbidity
Anthropometry	High BMI percentile	Overweight or obesity
	Short stature	Underlying genetic or endocrine problem
Vital signs	Elevated blood pressure	Hypertension or pre-hypertension
Skin	Acanthosis nigricans	Increased risk of insulin resistance
	Hirsutism, acne	Polycystic ovary syndrome
	Irritation, inflammation	Consequence of obesity
	Violaceous striae	Cushing syndrome
Eyes	Papilledema, cranial nerve VI palsy	Pseudotumor cerebri
Pharynx	Tonsillar hypertrophy	Obstructive sleep apnea
Neck	Goiter	Hypothyroidism
Chest	Wheezing	Asthma
Abdomen	Tenderness	Gastroesophageal reflux, all bladder disease, nonalcoholic fatty liver disease (may be asymptomatic)
	Hepatomegaly	
Reproductive	Tanner stage	Premature puberty
	Apparent micropenis	May be normal penis buried in fat
	Undescended testis, micropenis	Prader Willi syndrome
Extremities	Abnormal gait, limited hip range of motion	Slipped capital femoral epiphysis
	Bowling of tibia	Blount disease
	Small hands and feet, polydactyly	Prader Willi Syndrome Bardet-Beidel Syndrome

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## Tackling Obesity: What the Provider Needs

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As part of your discussion of H.R.'s daily diet and activity, you find that she is eating breakfast, a school lunch, and snack food after school and drinks water and juice between meals. Family cooks but also often eats out because of their busy schedule. Screen time is one to two hours on weeknights and five hours on weekends. Soccer practice has just ended and she has been coming home from school and napping for a few hours before dinner.

After a discussion of possible lifestyle changes, H.R. feels she can eliminate juice and other sugar containing beverages and mother feels the family can limit eating out to one time/week. Mother was also interested in information and menus to simplify dinner preparation and H.R. was interested in a healthier after school snack. H.R. was also responsive to restructuring her after school time to spend at least 30 minutes outdoors.

Pulmonary function tests (PFTs) were scheduled to evaluate possible exercise induced asthma. Laboratory studies including insulin and androgens were normal.

One month later, H.R. returns with no weight gain, having eliminated all sugared beverages, family eats out only once/week, and on her own started walking the treadmill for 30 minutes/day. She wants to increase her exercise routine and was encouraged to maintain the nutritional changes she and the family made.

H.R. missed her follow up appointment and returns in two months with a decrease in weight of 2.2 kg. She has been playing soccer every day and thinks she is getting more exercise on weekends. She brings in diet records and volunteers that she is eating more fiber in her diet and continues to have no sugared beverage intake. She also reports that her menstrual periods are getting more regular. She still has not obtained her PFTs.

One month later when she obtained her PFTs, her weight is down 2.5 kg, you began to work with her on her summer plans to make sure that she will maintain

her structured approach and self monitoring through school vacation.

### Case Study 2

W.R. is a six-year-five-month-old African American boy. He is in your office with his mother who states that in the last year and a half since you have seen him he has gained 20 lbs. Mother notes that W.R. constantly complains of hunger and thirst, eats large portions of food and gets upset if she mentions eating less. She states that W.R. "randomly sneaks food as soon as my back is turned" and that these behaviors have gotten worse since he has gotten older. Mother is worried about the effect of his weight on his self esteem, particularly as he is being teased in school.

Family history reveals that both parents and his 11-year-old brother are overweight (eight-year-old sister is normal weight). Mother has type II diabetes and father has hypothyroidism and high cholesterol. Two paternal uncles have type II diabetes.

Dietary history: He has a morning and afternoon snack of pretzels, fruit or crackers, dessert between dinner and bedtime, and drinks one percent milk, juice, and soda throughout the day.

Activity: He watches three hours of TV/day and has a TV in his room. He spends about two hours/day outdoors.

Review of systems is positive for mild intermittent asthma. He also has snoring, pauses in his breathing, and daytime tiredness suggesting possible sleep apnea. He has stomach pain and nausea after eating, which may relate to his large portions and rapid eating.

### Physical Examination

His weight is 48.3 kg, over the 100th percentile for weight, his height is 133.7 cm, over the 100th percentile for height, giving him a Body Mass Index (BMI) of 27.02, over the 100th percentile. Blood pressure is 100/70, under the 90th percentile. Tonsils are three plus. Liver ausculted one cm below the right costal margin. Metabolic labs were ordered and he was referred to pulmonary clinic for possible sleep apnea.

Mother agreed to keep diet records. You discussed eliminating unhealthy snacks

from the house as a possible environmental strategy and mother thought this would be possible. You and mom also discussed the impact of sugar-containing beverages on obesity and she felt she could eliminate these entirely for the whole family. You and mom also discussed the impact of having a TV in the bedroom and mother felt she could remove this without W.R. minding too much.

A return visit was scheduled for one month. On his return visit, his weight decreased 0.9 kg. Laboratory studies were reviewed and his cholesterol was elevated at 215 mg/dl. Mother said the major change that was accomplished in the last month was that the family completely eliminated sugared beverages. In addition, she and father joined Weight Watchers and she thinks this will really help support lifestyle change for the whole family. She notes that W.R. has been more active and outside more, however he is still complaining of hunger but she has noticed a marked decrease in his sneaking. His stomach pain and nausea after eating have resolved. You provided some specific information about lowering cholesterol and mother felt that choosing higher fiber content foods would work for her. A return appointment was made for four to five weeks. He had been seen in pulmonary clinic and a sleep study was scheduled.

The next month W.R. returns with a weight loss of 1.4 kg, Mother says that she thinks the family has completely changed their eating patterns. W.R. is no longer complaining of hunger and the increased outdoor time has resulted in W.R. "getting better" at his motor skills so he is included in more games at school. You ask mom how it has gone to increase fiber in the family's diet and she says "no one has minded" the whole grains, and higher fiber cereals she has begun buying. You ask when she and W.R. would like to return. Mother reports that coming monthly "keeps them on track."

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**References are available upon request to Barbara A. Layne, RN, at (800) 228-7823, ext 7806 or email [blayne@pamedsoc.org](mailto:blayne@pamedsoc.org).**

# Tackling Obesity: What Do Families Need?

by Sandra G Hassink, MD, FAAP

The etiology of childhood obesity is complex and multifactorial and therefore solutions to the epidemic will have to take into account the range of genetic, environmental, and familial influences on a child's weight and health. Many strategies are currently being implemented at the community, state, and national level to stem the tide of childhood obesity. Public education, school interventions to limit sugared beverages and to improve school meals, interventions in child care and in clinical settings are a few of the interventions aimed at obesity prevention and/or treatment.<sup>1</sup> All of these efforts and many others are extremely important as part of a coherent response to the obesity epidemic.

However, families are the place where “the rubber meets the road” when they find themselves in environments that are not optimal for promoting healthy active living. For children, prevention and treatment of obesity needs to be family centered. Families are the “constant” and the source of strength and support in a child's life. Family-centered care is collaborative care with families and based on the principles of respect, honoring diversity, supporting and facilitating choice, sharing honest and unbiased information, and recognizing and building on the strengths of each child and family.<sup>2</sup> How can we, with these concepts in mind, look at family function to enhance the work of obesity prevention, intervention and treatment?

The evidence based chronic care model<sup>3</sup> has been used to support the strategies necessary to prevent and treat obesity. In this model and that of the Medical Home,<sup>4</sup> the clinical team and the family form a foundational partnership to implement health care delivery in the form of healthy lifestyle change. A core component of these models is a highly functional clinical team interacting in partnership with the family system.<sup>4</sup> In many senses the family is the unit of change for the child. The family is also the “team” that delivers the healthy active living message and strives to imple-

ment it within the home. Families interact with the entities that “touch” a child's life, day care, schools, extended family, and community based organizations and need to be prepared to deal with nutrition and activity issues that arise in these settings.

One way of looking at families is that they are healthy lifestyle delivery teams that operate in the “microenvironment” of the individual child. They provide information about the child, the child's nutrition and activity behavior, and the child's environment. Even more importantly, they provide a primary means and support for the child to achieve a healthy lifestyle. Our interaction with families is the hallmark of the patient encounter and the “core business” of pediatrics, so that thinking about what families need and how we can support families in obesity prevention and treatment is critical to incorporating this work into our practices.

In a focus group study, parents identified barriers to success in adopting recommended healthy lifestyle behaviors. Some of the barriers cited were difficulty changing habits, having equality with other family members, lack of information, lack of time, needing assistance from other family members and child preference. Environmental barriers were time, cost, lack of transportation, safety, and convenience.<sup>5</sup> Issues which facilitated adopting healthier behaviors were availability of alternative activities, limit setting at a young age, enlisting outside support, parental behavior change, information about costs, involving the child, and making gradual change.<sup>6</sup> We can help families address some of these barriers to change.

The Expert Committee Recommendations addressed the role of the family, recognizing the families' “critical role in influencing children's health”<sup>6</sup> and that “health is a de facto characteristic of the family lifestyle”.<sup>7</sup> It has been shown that changing a parent's behavior can lead to a change in a child's behavior.<sup>8</sup> Families, then, are a focal point of change. The

Expert Committee stated<sup>9</sup> that family based behavioral change is recommended strategy for implementing obesity prevention, intervention, and treatment.

So we may ask ourselves, how we begin to understand what knowledge and skills families need. One way of looking at this is to think about families as microsystems of health care delivery. In this sense they need to use knowledge and skills to implement the changes in their families that will prevent or treat childhood obesity. The chronic care model may give us a framework for exploring what they might need. As part of the chronic care model, characteristics of highly functional clinical teams have been evaluated based on successful health outcomes.<sup>10</sup> These characteristics include:

- Integration of information
- Measurement
- Interdependence/Alignment of roles
- Constancy of purpose/Investment in improvement
- Supportiveness of the larger system/ Connection to the community.<sup>10,11</sup>

If we consider the family a micro system of health promotion, prevention and health care delivery, the characteristics of successful microsystems of health care delivery could serve as a framework for a family based intervention.

At first glance these characteristics may look foreign to what is most commonly thought of as traditional family functions. However, a closer look at these characteristics may help us tailor more meaningful and effective family based obesity treatment.

## Integration of Information:

In order to begin to address obesity prevention and treatment, families need information on the etiology, course, and consequences of childhood obesity. The causes of obesity are multifactorial and differ in each child and family. Genetics and parental obesity<sup>10</sup> clearly increase

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## Tackling Obesity: What Do Families Need?

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risk of childhood obesity. Families also need to know the environmental factors and high risk behaviors that propel a predisposition to energy imbalance into excess weight gain. The Expert Committee<sup>9</sup> recommended<sup>13</sup> evidence based, expert informed behaviors that providers are advised to promote with their patients. These are

- 1) Limit sugar-sweetened beverages
- 2) Increase servings of fruits and vegetables
- 3) Limit screen time (TV, computer, video games, etc.)
- 4) Eat breakfast daily
- 5) Limit dining out
- 6) Encourage family meals
- 7) Limit portion sizes
- 8) Consume a diet rich in calcium
- 9) Consume a diet high in fiber
- 10) Consume a diet with balanced macronutrients
- 11) Encourage exclusive breastfeeding through 6 months of age
- 12) Promote 60 minutes of physical activity daily, and
- 13) Limit energy-dense foods.

These behaviors form the basis for individualizing an obesity prevention or treatment strategy.

They have also been “distilled down” to easily memorable phrases, such as the American Academy of Pediatrics (AAP’s) **5210**<sup>11</sup> which translates into **5** servings of fruits and vegetables/day **2** or less hours of recreational screen time/day, **1** hour of physical activity/day and **0** sugar sweetened drinks. Many practitioners use questionnaires with the 5210 message to gather information about these behaviors while patients are waiting for their visit. The 5210 message can also serve as a “gateway” to a set of messages about diet/nutrition (5), sedentary behavior and alternatives (2), physical

activity, sports, activities of daily living (1) and risk factors for obesity comorbidities such as diabetes and liver disease (0).

### Measurement

Families need to understand the implications of obesity related measurements.

In an internet based study of families’ understanding of growth charts,<sup>12</sup> 79 percent of parents surveyed said they had seen a growth chart, 64 percent of parents thought it was important to be shown growth charts to see how their child was growing, and 40 percent expressed the need to see their child’s growth chart as confirmation of their health care provider’s verbal interpretation. However, only 64 percent could identify a child’s weight when shown a plotted point on a growth chart and 77 percent were unable to interpret growth charts that showed both height and weight measurements.

In a study of family’s interpretation of BMI charts, 60 percent of parents reported knowing what BMI was, but only 30 percent could define it. Parents with numeracy in the K-5 level did better with color coded BMI charts when asked questions about the charts.<sup>13</sup>

Parents and families may also be new to the idea that they will need to engage in measuring their own behaviors. Self monitoring is a component of the behavior intervention for obesity<sup>9</sup> and can increase self awareness and self efficacy. Self monitoring can be done by older children and adolescents and can involve tracking goals that have been set, such as monitoring hours of television, keeping diet records, using a pedometer to counts steps, or using an exercise log. Self monitoring can also be done by parents for younger children such as keeping diet records and can also be done for family behaviors as a group, such as monitoring family physical activity or screen time.

### Interdependence and alignment of roles

Clearly families have a vital role in influencing a child’s health.<sup>14</sup> The family system is the framework for effective intervention and each person within the family system has a unique role while

being connected to all other family members. The family system includes the knowledge, skills, personal history, health behaviors of individuals, and these personal frameworks may influence the family’s response to the diagnosis of obesity, the need for lifestyle change and the family’s ability to implement the change. There are shared genes and environment which come into play with the increased risk for obesity in a child with one or both parents obese,<sup>15</sup> and shared eating patterns.<sup>16</sup> The character and quality of family relationships may determine the ability of the family to initiate and maintain lifestyle change. Understanding family interactions and dynamics can help to individualize goals and steps toward change that fit each unique family.

Parenting style is a description of the interactions between parents and children that is consistent over a wide range of content and situations. Baumrind<sup>17</sup> described four parenting styles, authoritarian, authoritative, permissive, and disengaged. These styles vary in the acceptance and control valued by parents for their children. Authoritarian parenting style values obedience and does not in general encourage discussion. Authoritative parenting will set firm boundaries but use reasoning as well as authority, permissive parenting lets child self regulate their own activities, and disengaged parenting style can border on neglectful. The authoritative parenting style has been associated with reduced smoking,<sup>18</sup> increased physical activity, and decreased sedentary behavior in girls.<sup>19</sup>

The crucial role of parents is highlighted in studies which show that it is possible to conduct a parent only intervention that is successful. When parent only versus child only interventions were compared, parents only intervention was more successful in child initial and follow up weight loss. Parents were able to exert better control of the home nutritional environment and develop skills in authoritative parenting during the intervention.<sup>20</sup>

Parents and families may need to update or learn new parenting skills, link desired

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## Tackling Obesity: What Do Families Need?

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changes to their child's developmental stage, incorporate health messages, and the ability to sustain the changes.

Some touch points for clinicians are to identify parenting style, and identify "Who is parenting" i.e., parents, grandparents, older siblings. It is important to identify any conflict that exists between family members over weight, nutrition, activity, as well as sources of help and support. It is always interesting and important to ask the child how they would like family members to help them.

In the office, our goals are to help families attain knowledge and skills in order to translate health information into behavior change in the family system and help families to develop skills to sustain and maintain behavior change into the future. In our communities, our goals are to use our expertise and partnerships with families to develop community based prevention and treatment interventions to support families in sustaining lifestyle change.

### Constancy of purpose/ Investment in improvement

You can help families develop constancy of purpose via motivational interviewing. Through this dialogue, the clinician can help identify what parents value for their child and what the child values. The physician can also help families to align behavior change to what they value. For example, if parents value spending time together and the child values getting better at sports, those values can align with parents supporting the child to try a new physical activity. Goals for the child need to be shared between family members. This depends on communication and family dynamics that allow dialogue in order to set realistic and achievable goals. When the family succeeds at making change together, they build confidence that they can continue and achieve their goals. The primary care physician can support the family by focusing their purpose through setting goals, learning new skills, and dealing with set backs.

### Supportiveness of the larger system/ Connection to the community

It goes without saying that families and children can only make good choices if there are healthy choices available in the environment. Schools can promote healthy foods and restrict or discourage unhealthy foods at meals and in vending machines, they can expand their health curriculum to include information about nutrition and activity, increase physical education, in-class activity, recess, and after school activities.<sup>9</sup> School nurses and wellness committees can be valuable points of contact for school change, as can school boards, athletic associations, and the parent-teacher organizations.

The built environment, availability of recreational activities, and neighborhood safety are all issues that either support or work against child activity.

### Case

A 12-year-old girl comes to your office for a well check; her mother reports that she is making comments about her weight and being "fat." Her weight is 130 lb (59 kg) and height 5'3"(160cm) giving her a BMI of 23 which is at the 90 percentile for age and gender, classifying her as overweight. Her diet history reveals that she skips breakfast (no time), eats pretzel and juice for lunch (not hungry for a regular lunch), after school has a soda and snack food, family eats out three times a week (too busy to cook), and she eats cereal before bedtime. Her physical activity/inactivity assessment shows that she does not have gym this session, no recess, and no outdoor time. She has about three hours of television (TV) and computer time on a school day and watches TV "all day" on the weekend.

Psychosocial assessment: her mother feels she has low self esteem, is avoiding social situations, is moody, and sometimes angry, and that her "attitude" is affecting family relationships. The family constellation includes mother, father, and 14-year-old (thin) brother with frequent contact and meals at maternal grandmother's house. There is conflict between mother and grandmother about her

eating and activity, (mother feels grandmother is "giving in"), her father is supportive but her brother teases her both in front of the family and in front of friends.

The work of Rollnick *et al.*<sup>23</sup> was cited in the Expert Recommendations to help clinicians use three styles of communication termed Following, Guiding, and Directing to optimize the patient-physician encounter and move toward lifestyle change.

### Following

In the early phase of the encounter, the style of "following" is used. This is where the physician uses reflective listening, a technique of "reflecting back" to a patient what they said to affirm that they have been "heard". Along with reflective listening, open ended questions are used to gather information not only about the patient/family lifestyle behavior, but also about how they feel about the behavior and what the meaning of the behavior is to them.

The clinician establishes the basic facts of the story, often with a discussion of the behavioral history and the advantages and disadvantages of change.<sup>9</sup> During this discussion, the physician is becoming a partner with the patient to initiate change; they identify what changes are needed and what it is possible to address.

### Case

You begin by asking mother and father what they want or value for their child. They say that they want their daughter to be healthy and feel better about herself. Your patient wants to stop being teased and values acceptance by her grandmother. Grandmother values the health of her granddaughter and their close relationship. Through reflective listening, you begin to understand more of the family dynamics and possible barriers and facilitators of change.

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## Tackling Obesity: What Do Families Need?

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### Guiding

After you have gotten the basic understanding of what is going on, you can begin to discuss specific strategies to make lifestyle change. You can offer possible changes using the 13 behaviors discussed on page 5. You can ask the patient/family how important the change is to them and how confident they are they can make the change. These techniques bring the idea of change to the practical doable level for the patient and families.

### Case

The changes you discuss are

- 1) Eating a healthier snack after school;
- 2) Decreasing the number of nights the family eats out for dinner;
- 3) Reducing or eliminating the before bedtime snack of cereal;
- 4) Limiting TV on the weekends; and
- 5) Adding a peer group activity.

You ask which of these is most important to the family and patient and they say that reducing eating out because it would also save money; however, they would also like to try to limit TV on the weekends.

### Directing

At this point you want to help the family make plans for action. You help the fam-

**Counter Details** welcomes physician input. To offer suggestions, counter points, and comments, please call **(800) 228-7823, ext. 7806** or email **blayne@pamedsoc.org**

#### Editor:

Barbara A. Layne, RN, Director,  
Wellness and Chronic Disease

ily/patient set goals and decide how they will measure them, monitor change, and what the follow up will be.

### Case

You emphasize the idea that families need to work together. Mother and grandmother agree to eliminate sugared beverages from both houses and mother will limit eating out. The family also has a discussion with her brother, about teasing and bullying which they were not aware of until this visit.

You ask specifically how they plan to eliminate the sugared beverages and eating out. Mother says she will not buy any soda or juice at the store and grandmother says she will "hide" her drinks. You discuss the implications of hiding food and drink and grandmother agrees to just not buy any sugared beverages at the store. Mother feels she could make simpler dinners so she would not feel so pressured to eat out and thought that father might even cook one night. You also discuss with the family ways to address teasing from their son. You plan to see them back in one month.

### Revisit

When they come back you review their goals (eliminating sugared beverages at houses, reducing eating out, and addressing teasing at home). Mother and grandmother say that they have both eliminated sugared beverages from their houses. Mother is having difficulty reducing the number of times the family eats out, because she is stressed and busy. Mother and father have spoken with their son and have noticed a dramatic reduction of teasing.

You note that their daughter has lost 0.5kg and both children seem "ok" with the family changes.

You troubleshoot the eating out, offering some simple menus and strategizing with family about other family members helping with meal preparation. You ask

if they would like to make some of the other changes discussed and they agree to work on limiting TV on weekends by having a family activity. You work with them on their plan and schedule a revisit in one month.

Family involvement is an integral part of healthy lifestyle change and the prevention and treatment of obesity. Primary care physicians are in an ideal position to work directly with families and children to achieve a lifetime of healthier lifestyle behavior and healthier life.

In closing, I would like to remind the reader there was an issue of **Counter Details** entitled *Pediatric Obesity Management*, published July 2008, which continues to have a maximum of 3.00 **AMA PRA Category 1 Credits(s)**<sup>TM</sup> and 3 credit hours in Category 2B through POMA available until December 31, 2010. This newsletter can be found at [www.pamedsoc.org/counterdetails](http://www.pamedsoc.org/counterdetails).



**References are available upon request to Barbara A. Layne, RN, at (800) 228-7823, ext 7806 or email blayne@pamedsoc.org.**

# Childhood Nutrition and Weight Management Services for Children Under 21 Years of Age

by David A. Kelley, MD, MPA

Effective November 1, 2007, the Pennsylvania Department of Public Welfare (Department) added three new procedure codes (96151, 96153, and 96154) with an informational modifier and added modifiers to four existing procedure codes (96150, 96152, S9470, and T1015) that are already on the Medical Assistance (MA) Program Fee Schedule. Additionally, effective November 1, 2007, the Department provided payment for specific Childhood Nutrition and Weight Management Services that have been added to the MA Fee Schedule, when the services are medically necessary and rendered to MA-eligible children under 21 years of age.

The Department recognizes these services are medically necessary when the child's Body Mass Index (BMI) is at or above the 85th percentile (at risk of overweight). Childhood Nutrition and Weight Management Services may also be medically necessary for children with a BMI below the 85th percentile, if the child has experienced a substantial rapid increase or decrease in their BMI.

Childhood Nutrition and Weight Management Services consist of the following specific services: initial assessment, re-assessment, individual weight management counseling, family weight management counseling, group weight management counseling, and nutritional counseling.

## Initial Assessment and Re-assessment

The initial assessment helps the provider to determine the need for other Childhood Nutrition and Weight Management Services when medically necessary. The re-assessment helps the provider gauge the progress made by the child in their weight management-related treatment as a result of the childhood obesity weight management services that they have been receiving, to determine if the services continue to be medically

necessary and appropriate for the child, and whether the frequency, amount, and duration of services should be adjusted. The initial assessment and re-assessment include evaluation and discussion of the child's:

- daily caloric intake, including meals, snacks, and beverages;
- frequency, location, and content of the child's meals and snacks;
- physical activity;
- readiness to change behavior;
- physical symptoms associated with weight management problems;
- weight, height, BMI, BMI percentile, blood pressure, and pulse; and
- nutrition and weight management plan to address interventions and goals in coordination with the child, family, prescribing practitioner, and service provider(s).

MA participating physicians (provider type 31), CRNPs (provider type 09 with specialties 090, 091, 092, 093, and 094), outpatient hospitals (provider type 01 with specialties 010, 015, and 183), independent medical surgical clinics (provider type 08 with specialty 082), FQHCs (provider type 08 with specialty 080), and RHCs (provider type 08 with specialty 081) may bill for an initial assessment and re-assessment.

## Individual, Group, and Family Counseling

Through weight management counseling, providers assist children who are overweight and those with rapidly increasing or decreasing BMI with setting behavioral goals and developing intervention techniques. Weight management counseling includes the discussion of the child's motivation for eating, frequency of eating, frequency/type of exercise the child is involved in, the influence friends have on the child's eating, and exercise behavior, as well as appropriate food

groups, portion sizes, and other topics. Individual counseling is conducted one-on-one between the provider and the child who is overweight or with a rapidly increasing or decreasing BMI, focusing on the child's unique, personal needs. Group counseling is conducted in a group setting that includes 2-10 children who are overweight **or with a rapidly increasing or decreasing BMI**. Group counseling involves interaction of the group members and provider who offers supportive, cognitive, behavioral, and coping strategy interventions to assist the children to celebrate their successes as well as to recognize and analyze the challenges that they are experiencing. The intent is to assist the children to successfully adjust the strategies they are currently using in order to meet the challenges they are facing, and to attain greater success in their weight management efforts. Family counseling is conducted between the provider, the child who is overweight or with a rapidly increasing or decreasing BMI, and other members of the child's family. This counseling focuses on the child's weight management through the development of family weight management goals, with the provider teaching family members alternate strategies to help them adjust eating, activity behaviors, and routines to maximize the success of their weight management efforts.

MA participating physicians (provider type 31), CRNPs (provider type 09), outpatient hospitals (provider type 01 with specialties 010, 015, and 183), registered nurses (provider type 16 with specialty 160), independent medical surgical clinics (provider type 08 with specialty 082), FQHCs (provider type 08 with specialty 080) and RHCs (provider type 08 with specialty 081) may bill for individual, groups, and family counseling.

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## Childhood Obesity Weight Management Services

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### Nutritional Counseling

Through nutritional counseling, the nutritionist educates children who are overweight or with a rapidly increasing or decreasing BMI about proper nutrition and eating behaviors so the child may better achieve their weight management goals and maintain good health. Nutritional counseling, as performed between the nutritionist and individual child and prescribed by a practitioner, must be documented in the child's medical record and address:

- the impact of nutrition;
- actions needed to promote an adequate, balanced diet;
- maintenance and prevention of vitamin/mineral deficiencies;

- avoidance of drugs/alcohol;
- food management including shopping, storage, and preparation;
- monitoring or previously recommended dietary interventions;
- special nutrition needs and the value of supplements;
- relationship of medications to diet; and
- the child's nutritional care plan.

MA participating nutritionists (provider type 23 with specialty 230) may bill the MA program for nutritional counseling. MA participating outpatient hospitals (provider type 01 with specialties 010, 015, and 183), FQHCs (provider type 08 with specialty 080), and RHCs (provider type 08 with specialty 081) may bill for nutritional counseling performed by a nutritionist employed by the facility.

For more information of this benefit, please see the Medical Assistance Bulletin 99-07-19, *Childhood Obesity Weight Management Services for Children Under 21 Years of Age*, with the fee schedule attachment at [www.dpw.state.pa.us/PubsFormsReports.aspx?BulletinDetailId=4131](http://www.dpw.state.pa.us/PubsFormsReports.aspx?BulletinDetailId=4131) and Medical Assistance Bulletin 99-08-01, *Clarification of Childhood Nutrition and Weight Management Services for Recipients Under 21 Years of Age* at [www.dpw.state.pa.us/PubsFormsReports/NewslettersBulletins/003673169.aspx?BulletinId=4304](http://www.dpw.state.pa.us/PubsFormsReports/NewslettersBulletins/003673169.aspx?BulletinId=4304).

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**References are available upon request to Barbara A. Layne, RN, at (800) 228-7823, ext 7806 or email [blayne@pamedsoc.org](mailto:blayne@pamedsoc.org).**

## Resources available through the American Academy of Pediatrics:

The American Academy of Pediatrics (AAP) has a comprehensive website of resources for clinicians and parents/families on childhood overweight and obesity: [www.aap.org/obesity](http://www.aap.org/obesity).

Specific materials for clinicians and patient education can be purchased via the AAP Bookstore ([www.aap.org/bookstore](http://www.aap.org/bookstore)). Search by "obesity" for a direct link to all the related publications. For a print catalog or to order by phone, call toll-free from 7:00 am to 5:30 pm CST to (888) 227-1770.

### Examples of clinician materials available are:

#### **Pediatric Obesity: Prevention, Intervention and Treatment Strategies for Primary Care**

by Sandra G. Hassink, MD, FAAP. . . . . Price: \$59.95

#### **Pediatric Obesity Clinical Decision Support Chart (5210)**

. . . . . Price: \$39.95

#### **Eating Behaviors of the Young Child:**

##### **Prenatal and Postnatal Influences on Healthy Eating**

by William Dietz, MD, PhD and Leann Birch, PhD

. . . . . Price: \$49.95

### Examples of patient education materials available are:

#### **A Parent's Guide to Childhood Obesity:**

**A Road Map to Health** by Sandra G. Hassink, MD, FAAP, Editor in Chief, with Richard Trubo . . . . . Price: \$15.95

#### **Food Fights: Winning the Nutritional Challenges of Parenthood Armed with Insight, Humor and a Bottle of Ketchup**

by Laura A. Jana, MD, FAAP and Jennifer Shu, MD, FAAP . . . . . Price: \$14.95

#### **Balance for a Healthy Life: On the Road to Better Nutrition and Physical Fitness**

28 pages; sold in packs of 50. . . . Price: \$35.00 for pack of 50

- **Encourage Your Child to be Physically Active**
- **Feeding Kids Right Isn't Always Easy**
- **What's to Eat: Healthy Food for Hungry Children**

Brochures; sold in packs of 50 . . . Price: \$22.00 for pack of 50

#### **The Policy Opportunities Tool**

This tool is designed to showcase the various strategies that support healthy active living for children and families. It is designed for healthcare providers who have experience in advocacy and are interested in focusing their advocacy efforts on obesity prevention. [www.aap.org/obesity/matrix\\_1.html](http://www.aap.org/obesity/matrix_1.html)

## Weight Management Treatment Programs

County	Program Name	License Requirement	Contact	Address	Age Group
Allegheny	Family Fitness Obesity and Weight Control	Licensed Registered Dietitian	Cindy Javor (412) 473-2543	400 N. Lexington St. 3rd Floor, Pittsburgh, PA 15208	8-Older
	HVHS Nutrition Counseling	Licensed Registered Dietitian	Mary Baun (412) 299-1686	935 Thorn Run Rd., Coraopolis, PA 15108	2-7, 8-Older
	Kidshape	Licensed Registered Dietitian; Licensed Registered Nurse	Lisa Gnegy (412) 942-5882	1000 Bower Hill Rd., Pittsburgh, PA 15243	8-Older
	Kidshape	Licensed Registered Dietitian	Christine Solo (412) 359-3586	320 East North Ave., Pittsburgh, PA 15212-4772	8-Older
	Kidshape	Licensed Registered Dietitian	Kim Black (412) 787-9622	Heckel Rd., Kennedy Township Mckees Rocks, PA 15136	8-Older
	The Children's Hospital Of Pittsburgh	Licensed Registered Dietitian	Pat Fitzgerald (412) 692-5200	3420 5th Ave., Pittsburgh, PA 15213	2-7, 8-Older
	Sewickley Valley YMCA Nutrition Counseling	Licensed Registered Dietitian	Adrienne Stoner (412) 741-9622	625 Blackburn Rd., Sewickley, PA 15143	2-7, 8-Older
	Y-Wait	Licensed Registered Dietitian	Kimberly Black (412) 787-9622	195 Montour Run Rd., Coraopolis, PA 15108	8-Older
Beaver	HVHS Nutrition Counseling	Licensed Registered Dietitian	Mary Baun (412) 299-1686	1000 Dutch Ridge Rd., Beaver, PA 15009	2-7, 8-Older
Berks	Weight A Minute	Licensed Registered Dietitian	Andrea Dillaway Huber (610) 678-3763	1320 Broadcasting Rd., Spring Ridge Medical Center, Wyomissing, PA 19610	2-7, 8-Older
Bradford	First Friday	Licensed Registered Nurse	Linda Neiley (570) 268-2012	9 College Ave., Towanda, PA 18848	8-Older
	Smart Moves Toward Fitness	Licensed Registered Dietitian; Licensed Registered Nurse	Linda Neiley (570) 268-2012	4 Mulberry St., Towanda, PA 18848	8-Older
Bucks	Fit Kids	Licensed Registered Dietitian	Karen Aubert (215) 361-3759	750 S. West End Blvd., Quakertown, PA 18951	8-Older
Cambria	Kidshape	Licensed Registered Dietitian; Licensed Registered Nurse	Kathy Masiello (814) 534-9874	1086 Franklin St., Johnstown, PA 15905	8-Older

## Weight Management Treatment Programs *continued from page 17*

County	Program Name	License Requirement	Contact	Address	Age Group
Centre	Small Steps, Big Changes	Licensed Registered Dietitian	Scott Mitchell (814) 237-7717	677 West White Hall Rd., State College, PA 16801	8-Older
Chester	Eat Smart, Play Hard	Licensed Registered Dietitian	Judy Matusky (610) 526-8331	130 S. Brynmawr. Clowit Building., Brynmawr, PA 19010	8-Older
	H.I.P. Kids (Health Intervention Program)	Licensed Registered Dietitian	Meredith Griffin (610) 643-9622	50 S. 1st Ave., Coatsville, PA 19320	8-Older
	West Chester University Summer Youth Fitness and Weight Management Camp	Licensed Registered Dietitian; Licensed Registered Nurse	Sandra Gross (610) 436-3113	312 Sturzebecker. Health Sciences Center, West Chester, PA 19383	8-Older
Columbia	Columbia/Montour Tapestry of Health	Licensed Registered Dietitian	Cindy Witkowski (570) 752-6935	500 Fowler Ave., Suite 203, Berwick, PA 18603	2-7, 8-Older
Dauphin	Penn State Children's Hospital Pediatric Multi-Disciplinary Weight Loss Program	Licensed Registered Dietitian	Scheduler (717) 531-1442	500 University Dr., Hershey, PA 17033	2-7, 8-Older
Delaware	Eat Smart, Play Hard	Licensed Registered Dietitian	Judy Matusky (610) 526-8331	130 S. Brynmawr. Clowit Building. Brynmawr, PA 19010	8-Older
	Fitness Friday	Licensed Registered Nurse	Judith Grace (610) 534-1900	333 Constitution Ave.. Ridley Park, PA 19078	2-7, 8-Older
	Hip Kids	Licensed Registered Dietitian	Claine Crew (610) 649-0700	100 St. George's Rd., Ardmore, PA 19003	8-Older
	Healthy Kids and Families	Licensed Registered Dietitian	Becky Bailey (610) 891-3490	1068 West Baltimore Pike, Suite 3303 Media, PA 19063	2-7, 8-Older
	Nutrition for Kids, Teens and Families	Licensed Registered Dietitian	Emma Fogt (610) 649-6887	16 East Lancaster Ave.. Ardmore, PA 19003	2-7, 8-Older
Erie	Edinboro Elementary School	Licensed Registered Nurse	Virginia Mcclelland (814) 734-3136	5390 Route 6N West, Edinboro, PA 16412	2-7, 8-Older
	Kidshape	Licensed Registered Dietitian	Kathy Iorio (814) 877-3417	320 East 10th St., Erie, PA 16503	8-Older
	Northwestern Middle School HPE	Licensed Registered Nurse	Natalie Kostelansky (814) 756-9400	150 Harthan Way, Albion, PA 16401	8-Older
Fayette	Kidshape	Licensed Registered Dietitian	Barb Lewis (724) 439-1484	Morgantown and Fayette St., Uniontown, PA 15401	2-7, 8-Older

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**Weight Management Treatment Programs** *continued from page 18*

County	Program Name	License Requirement	Contact	Address	Age Group
Lackawanna	Nutrition Counseling Services, Inc	Licensed Registered Dietitian	Lou Ann Hudzik (570) 347-7127	313 East Drinker St., Dunmore, PA 18512	2-7, 8-Older
	SNAP (Sustainable Nutrition and Activity Plan)	Licensed Registered Dietitian	Marty Davey (570) 340-6079	2300 Adams Ave., Scranton, PA 18509	2-7, 8-Older
Lancaster	Fit Futures	Licensed Registered Dietitian	Lise Karpel (717) 336-6578	69 West Church St., Stevens, PA 17578	2-7, 8-Older
	Shapedown	Licensed Registered Dietitian	Joanna Boyer (717) 544-3138	2100 Harrisburg Pike, Suite 3200, Lancaster, PA 17604	8-Older
Lehigh	Kidshape	Licensed Registered Dietitian	Robin Chappelle (610) 776-4988	421 Chew St., Allentown, PA 18102	2-7, 8-Older
	Nutrition Counseling	Licensed Registered Dietitian	Melissa Feather (610) 437-7581	245 North 6th St., Allentown, Pa 18102	2-7, 8-Older
	Peggy Shannon, Nutrition Therapist and Registered Dietitian	Licensed Registered Dietitian	Peggy Shanon (610) 799-6734	825 North Cedar Crest Blvd., Allentown, PA 18104	2-7, 8-Older
	Shape It Up Fitness Program	Licensed Registered Dietitian	Melissa Feather (610) 437-7581	245 N. 6th St., Allentown, PA 18102	8-Older
Luzerne	Diabetes Management Center	Licensed Registered Dietitian	Carol Ostroski (570) 552-7150	534 Wyoming Ave., Suite 201, Kingston, PA 18704	2-7, 8-Older
	Youth Fit	Licensed Registered Dietitian	Mary Ellen Hoganballiet (570) 823-2191	40 West N. Hampton, Wilkes Barre PA 18701	8-Older
Lycoming	ASAP (After School Activity Program)	Licensed Registered Dietitian	Mark Casson (570) 323-7134	320 Elmira Street, Williamsport, PA 17701	8-Older
	Susquehanna Valley Pediatrics, LTD	Licensed Registered Dietitian	Scheduler (570) 321-1665	6 East Mountain Ave., South Williamsport, PA 17702	2-7, 8-Older
Monroe	Healthy Habits	Licensed Registered Dietitian	Amy Hollister (570) 977-0636	Multiple	2-7, 8-Older
	Nutrition Counseling	Licensed Registered Dietitian	Amy Hollister (570) 977-0636	Multiple	2-7, 8-Older
	Nutrition Counseling	Licensed Registered Dietitian	Christina Brecht (570) 629-9672	1 Washington St., East Stroudsburg, PA 18301	2-7, 8-Older

## Weight Management Treatment Programs *continued from page 19*

County	Program Name	License Requirement	Contact	Address	Age Group
Montgomery	Fit Kids	Licensed Registered Dietitian	Operator (215) 997-3600	2321 North Broad St., Colmer, PA 18915	8-Older
	Healthy Kidzone	Licensed Registered Dietitian	Patricia Altomare (215) 938-5616	1073 Old York Rd., Abington, PA 19001	8-Older
	Hip Kids	Licensed Registered Dietitian	Kathy Sackett (215) 368-1601 ext 246	608 East Main St., Lansdale, PA 19446	2-7, 8-Older
	The New Weigh to Go	Licensed Registered Dietitian	Scheduler (215) 481-2204	1200 Old York Road, Abington, PA 19001	8-Older
	Youth Movement	Licensed Registered Dietitian	Joshua Weisman (610) 520-2222	26 Rock Hill Rd., Bala Cynwyd, PA 19004	2-7, 8-Older
Montour	Family Fitness	Licensed Registered Dietitian	Yvette Beaumont (570) 271-3268	401 East Front St., Danville, PA 17821	8-Older
	Geisinger Health System Outpatient Nutrition Services	Licensed Registered Dietitian	Sharon Madalis (570) 271-6468	100 North Academy Ave., Danville, Pa 17822	8-Older
Northampton	Advantage Nutrition	Licensed Registered Dietitian	Jennifer Doane (610) 861-8080	2775 Schoenersville Rd., Bethlehem, PA 18017	2-7, 8-Older
Northumberland	Family Fitness	Licensed Registered Dietitian	Keith Long (570) 648-5721	3000 West State St., Coal Township, PA 17866	8-Older
Philadelphia	2-1-5 Go	Licensed Registered Dietitian	Brenda Lazin (215) 685-5237	Health Center #5 20th and Berks Sts., Philadelphia, PA 19121	2-7, 8-Older
	2-1-5 Go	Licensed Registered Dietitian	(215) 685-5703	Health Center #9 131 E. Chelton Ave., Philadelphia 19144	
	2-1-5 Go	Licensed Registered Dietitian	Brenda Lazin (215) 685-5237	Health Center #6 321 W. Girard Ave., Philadelphia 19123	
	Kids 4 Fitness		Kathy Coultres (215) 764-8508	2821 Island Ave. Philadelphia, PA 19153	8-Older
	Bling-Bling for the Body Student Assembly Presentations	Licensed Registered Dietitian	Scheduler (215) 617-7777	Schools in the Area Student Assembly Presentations Held in School Auditoriums, Philadelphia, PA 19118	2-7, 8-Older
	F.U.N. & Fit	Licensed Registered Dietitian	Laura Mager (215) 456-6559	5501 Old York Rd., Philadelphia, PA 19141	2-7, 8-Older

## Weight Management Treatment Programs *continued from page 20*

County	Program Name	License Requirement	Contact	Address	Age Group
Philadelphia	Garden Gang	Licensed Registered Dietitian	Lisa Diewald (215) 746-5030	3535 Market St., Suite 3180 Philadelphia, PA 19104	2-7
	One Step At A Time	Licensed Registered Dietitian	Vanette Jordan (215) 456-2352	5501 Old York Rd., Philadelphia, PA 19141	8-Older
	St. Christopher's Hospital Pediatric Metabolic Syndrome/ Weight Management Clinic	Licensed Registered Dietitian	Maureen Dever (215) 427-8100	Front St. and Erie Ave., Philadelphia, PA 19134	2-7, 8-Older
Schuylkill	Nutrition & Physical Activity Education Programs For Children, Parents & Teachers	Licensed Registered Dietitian	Diane Kraft (570) 943-2191	Schools May Contact Diane Kraft to Schedule a Program in Schuylkill County or to Refer Students in Need of Private Counseling, Orwigsburg, PA 17961	2-7, 8-Older
Union	Family Fitness	Licensed Registered Dietitian	Lynn James (570) 988-3950	443 Plum Creek Rd., Sunbury, PA 17801	8-Older
York	Be More Involved (BMI)	Licensed Registered Nurse	Joanne Sullivan (717) 849-2299	227 West Market St., York, PA 17401	8-Older
	Eat Smart, Play Hard	Licensed Registered Dietitian; Licensed Registered Nurse	Lynn Ware (717) 851-3225	400 York St., Hanover, PA 17331	2-7, 8-Older
	Eat Smart, Play Hard—Educational Series For Parents & Children	Licensed Registered Dietitian	Alice Price (717) 851-3225	1101 South Edgar St., Suite F, York, Pa 17403	2-7, 8-Older
	Wellspan Pediatric Clinical Weight Loss Program	Licensed Registered Dietitian	Bonnie Poff (717) 851-3387	2339 South George St. York, PA 17403	8-Older

## Pediatric Obesity Toolkit

A toolkit composed of office display posters, physician resources, and weight management treatment programs. **One Minute Advice for Providers, ICD-9-CPT Codes for Overweight, Obesity, and Associated Complications** will be available online mid-summer at [www.pamedsoc.org/CounterDetails](http://www.pamedsoc.org/CounterDetails).

# The Impact of the New WIC Food Packages on Obesity Prevention

by Amy L. Holtan, MA, RD, LDN, Public Health Nutritionist, Pennsylvania WIC Program

The Pennsylvania Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) unveiled its new Food Packages in accordance with federal regulations (USDA, 2007) on October 1, 2009. This marked the most significant changes to the Program since 1980. The changes were driven by a study conducted by the Institute of Medicine (IOM) to determine how WIC foods could better align with the current Dietary Guidelines for Americans (U.S. Department of Health and Human Services, 2005) as well as current infant feeding practice guidelines of the American Academy of Pediatrics (AAP) (American Academy of Pediatrics, 2005). The IOM was also charged with maintaining cost neutrality of the food packages in their recommendations. Additionally, the new foods provided by WIC better accommodate participant and cultural preferences.

Foods originally on the WIC program addressed public health needs such as anemia and low protein intake. Today's public health needs are focused on mitigating health problems associated with overweight and obesity and increasing the intake of whole grains and dietary fiber. The food package also changed to decrease the health risks associated with use of supplemental formula while breastfeeding. Breastfeeding is known to help decrease overweight later on in life.

## WIC Food Package Changes Effective October 1, 2009

### Infants

- Elimination of infant juice
- No solid foods before six months of age
- Addition of jarred baby fruits and vegetables (fully breastfed (BF) infants get twice as much)
- Fully BF infants will also get jarred baby meats
- BF infants cannot receive any formula before they are one month old (human milk fortifier is the only exception)
- Formula amounts increase slightly in months four & five and then decrease in months six through 11

### Infants, Children & Women on Special Formulas

If medically indicated, will receive all WIC foods for their age and breastfeeding status in addition to their special formula

#### Children

- Decreased amounts of milk, juice, and eggs
- One-year-olds will get whole milk, two- to five-year-olds will get reduced-fat or low-fat milk
- Cheese is no longer automatically provided, can get one pound in exchange for cow's milk if requested by the caregiver

- Addition of whole grains, fruits and vegetables
- Will have to choose at the WIC clinic between peanut butter or beans (one-year-olds can only have beans)
- **With medical providers authorization, may substitute soy beverage or tofu for cow's milk or additional amounts of cheese**

### Pregnant Women and Partially Breastfeeding (BF) Women

- Decreased amounts of milk, juice, and eggs
- Reduced-fat or low-fat milk will only be provided
- Cheese is no longer automatically provided, can get one pound in exchange for cow's milk if requested
- Now receive both peanut butter and beans
- Addition of whole grains, fruits and vegetables
- May substitute soy beverage and up to four pounds of tofu for cow's milk
- **Additional amounts of cheese or tofu would require medical provider's authorization**

### Post Partum Women

- Decreased amounts of milk, juice, and eggs
- Reduced-fat or low-fat milk will only be provided
- Cheese is no longer automatically provided, can get one pound in exchange for cow's milk if requested
- Will have to choose at the WIC clinic between peanut butter or beans
- Addition of fruits and vegetables
- May substitute soy beverage and up to four pounds of tofu for cow's milk
- **Additional amounts of cheese or tofu would require medical provider's authorization**

### Fully Breastfeeding Women and Pregnant Women with Multiple Fetuses

- Decreased amounts of milk and juice
- Reduced-fat or low-fat milk will only be provided
- Addition of whole grains, fruits and vegetables
- Now receive both peanut butter and beans
- Receive one pound of cheese
- May substitute soy beverage and up to two pounds of cheese or six pounds of tofu for cow's milk

*continued on page 21*

## The Impact of the New WIC Food Packages

*continued from page 20*

- Canned fish category has expanded to include pink salmon and sardines
- **Additional amounts of cheese or tofu would require medical provider's authorization**

### Fully Breastfeeding Women of Multiple Infants

Receive 1.5 times all the foods the Fully Breastfeeding woman gets.

### Specific Food Changes

- Participant can choose between canned or dry beans at the grocery store
- Half of all WIC eligible cereals are whole grain
- Only one-year-olds get whole milk, everyone else chooses from 2%, 1% or skim
- Whole grain choices include whole wheat bread or rolls, brown rice, oats and whole wheat or corn soft tortillas

### **Bolded items within each category require medical provider authorization/documentation**

In addition, to the new foods discussed above the new food packages focus on improving long term breastfeeding support for WIC participants. Lack of breastfeeding can set children up for risk factors for ill-health. The life-long impact can include poor school performance, chronic diseases, impaired intellectual and social development, and reduced productivity. (World Health Organization, 2006)

Studies conducted in industrialized countries have shown that the risks associated with not being breastfed for at least six months include:

- 3.5 times more likely to be hospitalized for respiratory infections
- 2 times more suffer from diarrhea
- 1.6 times more ear infections
- 1.5 times more likely to become overweight during childhood

(Ruowei, L., Fein, S.B., Chen, J., Grummer-Strawn, L., 2008)

Health care providers play a primary role in promoting and supporting exclusive and long-term breastfeeding among their patients. (American Academy of Pediatrics & American College of Obstetricians and Gynecologists, 2006) It is important to note that there is an inverse relationship between the amount of formula given and degree of health risk. The more human milk that is substituted with formula, the higher the sum of health consequences. WIC will assist your patients to achieve a successful breastfeeding experience by providing counseling and education, issuing breast pumps to women who meet WIC criteria, and providing additional foods for both mom and infant older than 6 months. Specifically, beginning October 2009, women who exclusively breastfeed will receive additional amounts of milk, eggs, and are the only WIC participant type who automatically receives cheese and canned fish. "Fully"

breastfed infants (WIC's term for exclusive breastfeeding) will receive twice the amount of baby fruits and vegetables and will be the only infants who will receive baby meats (USDA, 2007). Additional foods for the fully breastfeeding mother is the equivalent of \$23.00 per month between birth of the infant and five months. Additional foods for the fully breastfeeding mother and infant are the equivalent of \$63.00 per month between months six and eleven.

Contact Amy Holtan, Pennsylvania State WIC Public Health Nutritionist at, (717) 783-1289 or aholtan@state.pa.us for questions.

### Fully (exclusively) breastfeeding mother and infant

#### 0-5 months:

Mother - additional value of \$23.00 of foods per month

#### 6-12 months:

Mother and infant - additional value of \$63.00 of foods per month

## New USDA Food Packages-

As of October 2009

### Infant Foods/Month -

No foods issued for infants younger than 6 months of age

Food Category	Fully (exclusively) Breastfed	Formula Fed
Infant cereal	24 oz	24 oz
Fruit/vegetable	64 jars (256 oz)	32 jars (128 oz)
Meat	31 jars (77.5 oz)	None

### Mother Foods/Month -

	Issued birth of infant to 12 months	Issued birth of infant to 6 months
Food Category	Fully (exclusively) Breastfeeding	Not Breastfeeding
Milk	24 quarts	16 quarts
Cereal	36 ounces	36 ounces
Cheese	1 pound	None
Juice (12 oz. conc.)	3 cans	2 cans
Eggs	2 dozen	1 dozen
Peanut Butter	18 ounces	None
Beans	4 cans	4 cans
Canned fish	30 ounces	None
Whole grains	16 ounces	None
Fruits/vegetables	\$10 voucher	\$10 voucher

**References are available upon request to  
Barbara A. Layne, RN, at (800) 228-7823, ext 7806  
or email [blayne@pamedsdc.org](mailto:blayne@pamedsdc.org).**



## All The Buzz About BMI

**Now that schools are calculating Body Mass Index (BMI), here is something that you can share with your patients to understand what the buzz is all about.**

### **What is Body Mass Index?**

BMI is a calculation that uses height, weight, age, and sex to determine how a child is growing.

### **How is BMI Calculated?**

Nothing has changed during the school growth screening. The school measures height and weight of each child, enters those numbers into a formula and BMI and BMI percentile for each child is calculated.

### **What will be done with the numbers?**

The school will then send this information home to parents/guardians and asks them to share this with their health care provider. BMI results are not shared with the child's friends or teachers.

### **Why is it good to know about BMI?**

Being overweight can lead to illnesses, such as diabetes, heart disease, breathing problems, joint problems and depression. Plus, being overweight as a child or teenager greatly increases the chances of being overweight as an adult. Being underweight can cause harm to a child's heart, kidneys, muscles and bones, and may lead to anemia. A high or low BMI is just one of many risk factors for these illnesses. However, the more risk factors a child has, the greater the chance the child will develop one of these diseases.

### **BMI—just one piece of the puzzle.**

When it comes to weight, BMI is NOT the whole story. A child who is very muscular, like an athlete, may have a higher weight and BMI but not have a lot of body fat. Two people with the same BMI may have different body fat levels.

### **BMI-for Age Percentile Calculator**

Calculate BMI at <http://www.kidsnutrition.org/bodycomp/bmiz2.html>.

### **My BMI is high. Now what?**

Talk to parents/guardians about what to do to lower BMI. Eating healthier and exercising more can improve a child's BMI. Remember, lowering a BMI to a healthy level now will help to prevent problems in the future.

### **What can be done at home to lower BMI?**

Recommendations for parents

1. Eat breakfast every day.
2. Eat together as a family.
3. Food should not be used as a reward.
4. Eat more fruits and vegetables.
5. Encourage parents/guardians to serve low-fat, low-calorie foods and snacks.
6. Limit the time a child spends watching TV, at the computer, and playing video games.
7. Get moving (physical activity). 60 minutes or more a day.
8. Talk to school nurses or teachers about healthy eating and physical activity opportunities.
9. Encourage children to make healthy choices when buying from vending machines.
10. Pack fruits and vegetables and whole grain foods in children's lunches.
11. Encourage full participation in daily physical education classes

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