



## **Policy Position Statement on the Prevention, Assessment, Diagnosis and Treatment of Child and Adolescent Obesity in the Healthcare Environment December 2007**

### **I. Position**

The American Heart Association (AHA) acknowledges that addressing child and adolescent overweight and obesity in healthcare is a critical part of reversing the bulging waistlines and the concomitant incidence of chronic disease across the United States. An American Medical Association Expert Committee released recommendations on the assessment, prevention and treatment of child and adolescent overweight and obesity (see Appendix A). The American Heart Association endorses these recommendations. The evidence base concerning appropriate treatment and prevention options is still evolving, however these recommendations represent the best available science, most effective practice, and soundest methods moving forward.

This policy position paper not only summarizes these recommendations, but also defines the corresponding policy changes that must occur for the recommendations to be fully realized in a healthcare setting. There is a clear link between childhood obesity and cardiovascular health problems as an adult. Thus, the prevention and treatment of childhood obesity will pay dividends in reducing adult cardiovascular disease and disability, averting healthcare costs and the negative impact of cardiovascular disease and productivity in the workforce. Providers play a key role in the fight against childhood obesity and need to be given the support and training necessary to be effective in the clinical environment and as advocates in their communities.

### **II. Rationale**

The Institute of Medicine recommends an “ecological model” for public health interventions where the individual is viewed within the larger context of community, family, and society.<sup>i</sup> The obesity crisis and the public health threat it represents mandates this ecological model where the healthcare community plays an integral role in the clinical setting and members also serve as advocates for programs in communities that help teach and support healthy behaviors. However, many providers indicate they are not up to the challenge due to lack of information, training or guidelines.

When surveyed, many pediatricians report feeling ineffective in their treatment of childhood obesity.<sup>ii</sup> In one study, only 44 percent of internal medicine residents believed they were qualified to treat obese patients, and 31 percent thought treatment was ineffectual.<sup>iii</sup> Only a third of pediatricians use body mass index (BMI) charts during patient visits and many physicians are uncertain how to tailor guidance to children with obesity risk factors.<sup>iv</sup> Other healthcare professionals, including nurse practitioners have expressed similar self-perceptions of low

proficiency especially in the use of behavioral management strategies, guidance in parenting techniques, and addressing family conflicts.<sup>v</sup>

Obesity prevention programs in children and adolescents have shown success.<sup>vi</sup> Providers have embraced multiple clinical resources on childhood obesity, including practice-based toolkits for obesity management while expressing a desire for training and a willingness to advocate for policy change.<sup>vii</sup> Training all health care providers is critical to adopting new tools and practices. After brief, cost-effective, multifaceted training, physicians report an increased use of recommended screening and counseling tools and interactive exercises.<sup>viii</sup> The AMA recommendations serve as a foundation for future childhood obesity training programs and fill a much needed void in the medical community in terms of consolidated best practices for preventing and treating this epidemic.

### **III. Recommendations**

#### **Summary Recommendations:**

The following is a summation of the AHA's endorsement of the recommendations. By implementing the guidelines providers play a proactive role in the lives of all children and families in teaching and maintaining a healthy lifestyle.

#### **Prevention:**

1. Children should be breastfed to age 6 months.
2. Breastfeeding should be maintained after introduction of solids to age 12 months and beyond.
3. Children should eat breakfast every day.
4. Families should take a positive approach to eating by reading labels, eating more fruits and vegetables at every meal and watching portion sizes rather than restricting favorite foods.
5. Families should eat meals together at home as often as possible, exercise together and reinforce positive lifestyle behaviors.
6. Children should drink 3-4 eight ounce glasses of nonfat milk or nondairy calcium vitamin D fortified milk daily.
7. Excessive intake (more than 12 ounces) of 100% fruit juice should be avoided and sugar sweetened beverages should either be limited or preferably avoided.
8. Portion sizes should be limited to the amount of calories recommended by age.
9. Children and adolescents should get at least one hour of physical activity every day.
10. Families should keep televisions and other electronic screens out of children's bedrooms.

#### **Assessment:**

1. Healthcare providers should perform, at a minimum, a yearly assessment of weight status in all children.
2. Providers should qualitatively assess dietary patterns, screen time, and physical activity behaviors in all pediatric patients at each well child visit.

3. All overweight and obese children should receive a thorough physical examination including BMI assessment, pulse rate and blood pressure measured with a large enough cuff. The following laboratory tests should occur for both the overweight and obese: fasting lipid profile, fasting glucose, aspartate aminotransferase, and alanine aminotransferase. In the obese patient, blood urea nitrogen and creatinine should be assessed.
4. Healthcare providers should obtain a focused family history for obesity, type 2 diabetes, cardiovascular disease (particularly hypertension), and early deaths from heart disease or stroke to assess risk of current or future comorbidities associated with a child's overweight or obese status.

**Treatment:**

For overweight and obese children, treatment should occur in a staged approach based upon the child's age, BMI, related comorbidities, weight status of parents, and progress in treatment: a prevention plus protocol, structured weight management, comprehensive multidisciplinary protocol, and pediatric tertiary weight management. The child's primary caregivers and families should be integrally involved in the process.

**Prevention:**

Providers play a critical role in giving anticipatory guidance and serving as an ongoing source for the following preventive measures that should be adhered to by all families regardless of their child's weight.

***Diet***

Children should be breast fed exclusively to age 6 months. Breastfeeding should be maintained after introduction of solids to age 12 months and beyond. Children should eat breakfast every day. Breakfast should include whole grains, whole fruit, or 100% juice and/or lowfat milk or nondairy calcium vitamin D rich foods or beverages. Families should take a positive approach to eating by reading labels, eating more fruits and vegetables at every meal and watching portion sizes rather than restricting favorite foods. Families should eat meals together at home as often as possible and reinforce positive lifestyle behaviors.

Children should drink 3-4 eight ounce glasses of preferably nonfat milk or nondairy calcium vitamin D fortified milk daily. Excessive intake (more than 12 ounces) of 100% fruit juice should be avoided and sugar sweetened beverages should either be limited or preferably avoided. Children should drink water at other times throughout the day. They should eat a calcium-rich diet with age-appropriate portion sizes of all recommended food groups to achieve ideal levels of fat, protein complex carbohydrates and fiber for age. Portion sizes should be limited to the amount of calories recommended by age. Children and adolescents should balance dietary calories with physical activity to maintain normal growth and weight.<sup>ix</sup>

***Less Screen Time; More Physical Activity***

Children should participate in active play and engage in at least one hour of moderate to vigorous physical activity daily. Consistent evidence shows that families should limit

television and other screen time. Families should keep televisions and other electronic screens out of children's bedrooms. Exercising longer than 60 minutes can yield increased benefit for the whole family.

### ***Providing Additional Support***

Healthcare providers should take other important steps to support obesity prevention. They should actively engage families with parental obesity or maternal diabetes as these children are at increased risk for developing weight problems. In families where one or more parent is overweight or obese providers should take a family based approach in addressing and preventing obesity.<sup>x</sup>

Providers should encourage an authoritative parenting style in support of increased physical activity and reduced sedentary behavior, provide tangible and motivational support for children, discourage a restrictive parenting style regarding child eating, and encourage parents to model healthy behaviors.<sup>xi</sup>

They should also acknowledge the difficulties of behavior change and how hard it can be for patients to incorporate more physical activity and better dietary habits as part of their lifestyle. Patients should be connected with resources and tools to help in this effort.<sup>xii</sup> Providers should acknowledge the difficulty associated with changing behaviors related to diet and physical activity and should utilize resources for patients to refer to as part of their effort. Additionally, health care professionals should promote physical activity at school and in child care settings (including after school programs), by asking children and parents about activity in these settings during routine office visits.

### **Assessment:**

#### ***Standard Assessment Procedures***

Healthcare providers should perform, at a minimum, a yearly assessment of weight status in all children. This assessment includes calculation of height, weight, and body mass index (BMI) for age and plotting of those measures on standard growth charts. Routine clinical use of skinfold thickness is discouraged. Waist circumference is increasingly invoked as an indicator of insulin resistance and other comorbidities of obesity, however routine use in children is not recommended

Providers should qualitatively assess dietary patterns in all pediatric patients at each well child visit. Assessment includes self-efficacy and readiness to change, frequency of eating outside the home, excessive consumption of sweetened beverages, consumption of excessive portion sizes for age, excessive intake of 100% fruit juice, regularly eating breakfast, low consumption of fruits and vegetables, meal frequency and snacking patterns.

Providers should assess levels of physical activity at all pediatric visits especially the well-child visit. This evaluation should include self-efficacy and readiness to change, environment, social support and barriers to physical activity, and reinforcing the recommended 60 minutes of exercise per day for children. Moreover, physicians should encourage families to exercise together, creating physical activity opportunities

throughout the day. Physicians should question about screen time and inform that it should be restricted to 1-2 hours a day.

### ***Classification***

Individuals between the ages of 2 to 18 years, with a BMI > 95<sup>th</sup> percentile for age and sex or BMI exceeding 30 (whichever is smaller), should be classified as “obese.”

Individuals with BMI > 85<sup>th</sup> percentile, but < 95<sup>th</sup> percentile for age and sex, should be considered “overweight”, and this term replaces “at risk of overweight.”

### ***Assessments for the Overweight and Obese***

Healthcare providers should obtain a focused family history for obesity, type 2 diabetes, cardiovascular disease (particularly hypertension), and early deaths from heart disease or stroke to assess risk of current or future comorbidities associated with a child’s overweight or obese status. All overweight and obese children should receive a thorough physical examination including BMI assessment, pulse rate and blood pressure measured with a large enough cuff. The following laboratory tests should occur for both the overweight and obese: fasting lipid profile, fasting glucose, aspartate aminotransferase, and alanine aminotransferase. In the obese patient, blood urea nitrogen and creatinine should be assessed. Lipid profiles are generally underutilized by healthcare professionals; ordering and using these tests is a positive step towards addressing overweight and obesity.

### **Treatment:**

For overweight and obese children, treatment should occur in a staged approach based upon the child’s age, BMI, related comorbidities, weight status of parents, and progress in treatment. The child’s primary caregivers and families should be integrally involved in the process.

### ***Stage One: Prevention Plus Protocol***

This is conducted by primary care physicians or healthcare providers who have some training in pediatric weight management/behavioral counseling. The goal is to achieve weight maintenance with growth that results in decreasing BMI as the child gets older. Behaviors to address include: intake of 100% fruit juice, screen time per day, consumption of sugar-sweetened beverages, encouraging at least 60 minutes of physical activity, and consumption of 5 or more servings of fruits and vegetables/day. Families are counseled to eat breakfast daily, involve the whole family in lifestyle changes, limit meals outside of the home, eat together more often, allow children to self-regulate their meals, and avoid overly restrictive behavior. After 3-6 months, if no improvement in BMI/weight status is noted then advancement to Stage Two is recommended based on the patient’s readiness to change.

### ***Stage Two: Structured Weight Management Protocol***

Stage Two is conducted by a physician or healthcare provider highly trained in addressing overweight and obesity. The goal is weight maintenance that results in a decreasing BMI as age and height increases. A diet plan is introduced emphasizing low

amounts of energy-dense foods with a slight calorie deficit and structured daily meals and planned snacks. Other components include supervised physical activity for at least 60 minutes/day, screen time of less than 1 hour per day, the use of logs to monitor screen time and physical activity, and planned positive reinforcement for achieving behavior targets. The AHA would encourage individual primary care providers to set weight loss goals based on what is individually appropriate for that child and cautions against any protocol that tries to achieve an excessive amount of weight loss in a condensed time period. After 3-6 months, if there is not significant progress, the patient should be advanced to Stage Three.

***Stage Three: Comprehensive Multidisciplinary Protocol***

Stage Three is a comprehensive multidisciplinary protocol where the patient is optimally referred to a multidisciplinary obesity care team that might include a physician, nurse, registered dietitian, exercise physiologist, and/or a therapist to address behavior modification strategies. The goal for this stage is weight maintenance or gradual weight loss to achieve a BMI of less than the 85<sup>th</sup> percentile. Diet and physical activity behaviors are the same as in Stage Two and should also include a structured behavioral modification program, including food and activity monitoring and development of short-term diet and physical activity goals. Weight loss should be individually tailored and not overly excessive or rapid. Children who are obese (BMI > 95th percentile), with significant comorbidities who have not been successful with Stages 1-3, or children who are severely obese (BMI > 99th percentile) who have not shown any improvement under Stage Three should advance to Stage Four.

***Stage Four: Pediatric Tertiary Weight Management***

In Stage Four, children are referred to a pediatric tertiary weight management center with access to a multi-disciplinary team that has expertise in childhood obesity and operates under a designed protocol. This protocol should include continued diet and activity counseling and possible additions such as meal replacement, very-low-calorie diet, medication, and a consideration of all therapeutic options.

## **IV. Policy Recommendations**

**Summary Policy Recommendations:**

1. Pertinent preventive, counseling and treatment services must be realistically reimbursed by public and private payers.
2. Screening services, in particular, must be incorporated into all benefits packages.
3. Provider education needs to be strengthened.
4. Providers should model healthy behaviors and they should encourage parents to do the same.
5. The provider workforce needs to be increased.
6. Providers are particularly effective advocates and should be encouraged, e.g. through action of their professional societies, to play this role.
7. Prevention and treatment outcomes must be collected in order to add to the existing evidence base regarding effective measures to address the childhood obesity epidemic in clinical settings.

8. Resources and training opportunities for healthcare providers on the prevention and treatment of childhood obesity should be developed.
9. Implement HEDIS measures for overweight/obesity in children and adolescents.
10. Provide funding to disseminate valid and useful assessment and screening tools to healthcare providers.
11. Health care institutions themselves should model healthy environments to include comprehensive worksite wellness, staff health promotion, support and treatment programs, healthy food offerings in cafeterias and vending machines, physical activity opportunities, screening programs, and educational programming and incentives.

Adjustments must be made to the healthcare delivery system to facilitate a system of care approach for the prevention and treatment of childhood obesity and to create reimbursement guidelines to allow children to get the necessary counseling and assistance they need to lead longer, healthier lives. The AMA recommendations cannot be fully implemented unless corresponding changes are made in the healthcare delivery system. Physician shortages, i.e. demand exceeding supply, will require that provider workforce issues be addressed, especially in rural and underserved areas, and the healthcare system and policy makers will need to address how services are delivered more effectively and efficiently.<sup>xiii</sup> Providers must record and track BMI as part of every office visit and should spend time at each appointment counseling children and families about their weight and physical activity. The Healthcare Effectiveness Data and Information Set (HEDIS) is a tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service. HEDIS measures for overweight/obesity in children and adolescents should be implemented within the healthcare system. These steps must be supported through a standard array of preventive and treatment reimbursement options defined by public and private insurers.

A wide variety of healthcare providers play seminal roles in addressing the prevention and treatment of childhood obesity. All the policy recommendations targeted at providers should be understood to include physicians and nurses as well as registered dietitians, exercise physiologists, physical therapists and other healthcare professionals. Each of these professionals has as part of his or her training specific skill sets which will be fundamental to a child successfully adopting a healthy lifestyle.

Furthermore, if a child demonstrates a weight problem, providers must have an arsenal of tools available to bring that child back for additional office visits paid for by the insurance carrier for the explicit reason to address the issue of overweight and obesity. Implementation of the recommendations might also call for the involvement and reimbursement of a diverse array of healthcare professionals including registered dietitians and nurse practitioners. These providers play a critical role helping to teach and maintain healthy behaviors in children and families and additional benefit offerings will be critical to ensuring positive long term treatment outcomes. Outcomes of providers' efforts to prevent and treat childhood obesity must be closely evaluated to add to the science base concerning effective options for the prevention and treatment of this condition.

Several additional patient barriers remain for the successful treatment of childhood obesity: lack of parent involvement, patient motivation, cultural barriers and support services.<sup>xiv</sup> Parents play a critical role in shaping a child's diet patterns and modeling healthy behaviors. However, mothers of overweight children often do not define their children as overweight and may find it difficult to deny additional food to their children.<sup>xv</sup> Healthcare professionals must work to clearly articulate their concerns about a child's weight to parents. In instances where one or more parent is overweight or obese it might be appropriate to take a family-based approach to treatment. Practitioners must work with families to develop an action plan and goals related to their child's weight problem that will incorporate physical activity and lessons

on healthy eating. Providers many times need additional education in this area therefore, the AHA encourages industry wide training on the AMA guidelines and how to address childhood obesity in healthcare settings.

The AHA recognizes the critical role healthcare providers play in the community. They can leverage their expertise by working as advocates to form alliances and lobby for policy change to maximize health in families, schools and communities.<sup>xvi</sup> Providers can serve as effective change agents for both the family and community. The AHA encourages providers to work with families to explore use of local physical activity options, providing health and wellness information in their offices and advocating for strong school wellness polices or healthy food offerings in their hospital system or local restaurants.

## **V. Conclusion**

The AMA Recommendations should serve as the foundation of the medical community's approach to the prevention and treatment of childhood obesity and should be integrated into all medical settings as well as supporting clinical resources and toolkits. The healthcare marketplace plays a critical role in ensuring the full implementation of these guidelines through the provision of reimbursements to support the full prevention and treatment of childhood obesity, including reimbursement from public and private insurance programs.

The AHA also encourages additional training be made available on the AMA recommendations to both educate and empower providers to help them fulfill their role in addressing the childhood obesity epidemic. It is the hope of the AHA that this policy statement will galvanize providers to serve as advocates in their offices and communities to lobby for state and local policy changes to help tackle this condition. Healthcare professionals are central to reversing the epidemic trends of obesity across the United States, not only as providers of care in the clinical environment, but as advocates for community, family and school environments that support healthy lifestyles.

## **VI. Appendix – AMA Recommendations**

[http://www.ama-assn.org/ama1/pub/upload/mm/433/ped\\_obesity\\_recs.pdf](http://www.ama-assn.org/ama1/pub/upload/mm/433/ped_obesity_recs.pdf)

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