

Body Mass Index (BMI) Percentile Assessment and Counseling for Nutrition and Physical Activity (BCA)

SUMMARY OF CHANGES TO HEDIS 2009

- First-year measure.

Description

The percentage of members 2–17 years of age who had an outpatient office visit and who had evidence of the following during the measurement year.

- BMI percentile assessment
- Counseling for nutrition
- Counseling for physical activity

Definitions

BMI	Body mass index (BMI) is calculated from a person's height and weight. The calculation is based on the following formulas. <ul style="list-style-type: none"> • $\text{weight (kg)} / [\text{height (m)}]^2$ <i>or</i> • $[\text{weight (lb)} \times 703] / [\text{height (in)}]^2$
BMI percentile	The percentile ranking based on the Centers for Disease Control and Prevention (CDC) BMI-for-age growth charts (for either girls or boys), which indicates the relative position of the child's BMI number among children of the same sex and age.

Eligible Population

Product lines	Commercial, Medicaid (report each product line separately).
Ages	2–17 years as of December 31 of the measurement year. For each indicator (BMI Percentile Assessment, Counseling for Nutrition, Counseling for Physical Activity) report two age stratifications and a total. <ul style="list-style-type: none"> • 2–11 years • 12–17 years • Total <p>The total for each indicator is the sum of the numerators for each age band divided by the denominator (which is the same for each indicator).</p>
Continuous enrollment	The measurement year.
Allowable gap	No more than one gap in continuous enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date None.

Benefit Medical.

Event/diagnosis Members who had an outpatient visit (Tables BCA-A) during the measurement year.

Table BCA-A: Codes to Identify Outpatient Visits

Description	CPT	ICD-9-CM Diagnosis	UB Revenue
Outpatient	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99382-99385, 99392-99395, 99401-99404, 99411, 99412, 99420, 99429, 99499		051x, 0520-0523, 0526-0529, 077x, 0982, 0983
Home services	999341-99350		
Preventive medicine	99381-99385, 99391-99395, 99401-99404, 99411-99412, 99420, 99429		
General medical examination		V20.2, V70.0, V70.3, V70.5, V70.6, V70.8, V70.9	

Administrative Specification

Denominator The eligible population.

Numerators

BMI Percentile BMI percentile assessment during the measurement year. Use codes in Table BCA-B to identify claims indicating BMI percentile assessed.

Counseling on Nutrition Counseling on nutrition during the measurement year. Use codes in Table BCA-B to identify claims for counseling on nutrition.

Counseling on Physical Activity Counseling on physical activity during the measurement year. Use codes in Table BCA-B to identify claims for counseling on physical activity.

Table BCA-B: Codes to Identify BMI Percentile and Counseling for Nutrition and Physical Activity

Description	CPT	ICD-9 Diagnosis	ICD-9 CM Procedure	HCPCS
BMI, pediatric		V85.5		
Counseling on nutrition	97802-97804, 98960-98962, 99078	V65.3		S9470, S9452 G0270-G0271
Counseling on physical activity		V65.41	93.11, 93.13, 93.19, 93.31	S9451, H2032

CPT codes copyright 2005 American Medical Association. All rights reserved. CPT is a trademark of the AMA. No fee schedules, basic units, relative values or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use.

Hybrid Specification

Denominator A systematic sample drawn from the eligible population for each product line. The organization may reduce the sample size using the current year's administrative data.

Numerators

BMI Percentile Documentation of BMI percentile during the measurement year as identified by administrative data or medical record review.

Administrative Refer to the *Administrative Specification* above to identify positive numerator hits from the administrative data.

Medical record At a minimum, documentation must include a note indicating the date on which the BMI percentile was calculated and evidence of either of the following.

- BMI percentile value
- BMI percentile plotted on age-growth chart

For adolescents 16–17 years, documentation of a BMI value expressed as kg/m² is acceptable.

Counseling on Nutrition Documentation of counseling on nutrition or referral for nutrition education during the measurement year as identified by administrative data or medical record review.

Administrative Refer to the *Administrative Specification* above to identify positive numerator hits from the administrative data.

Medical record Documentation must include a notation of the date and indication of at least one of the following.

- Assessment of current nutrition behaviors
- Checklist indicating nutrition was addressed
- Counseling or referral for nutrition education
- Member received educational materials on nutrition
- Anticipatory guidance for nutrition

Counseling on Physical Activity Documentation of counseling on physical activity or referral for physical activity during the measurement year as identified by administrative data or medical record review.

Administrative Refer to the *Administrative Specification* above to identify positive numerator hits from the administrative data.

Medical record Documentation must include a notation of the date and indication of at least one of the following.

- Assessment of current physical activity behaviors
- Checklist indicating physical activity was addressed
- Counseling or referral for physical activity
- Member received educational materials on physical activity
- Anticipatory guidance for physical activity

Exclusions (optional)

- Exclude from the eligible population all pregnant members (Table BCA-C) during the measurement year.

Table BCA-C: Codes to Identify Exclusions

Description	ICD-9-CM Diagnosis
Pregnancy	630-677, V22, V23, V28

Note

The following “negative findings” should not count as numerator compliance.

- **BMI**
 - No evidence of BMI calculation or percentile written in medical record or plotted on graph
 - BMI noted prior to or after the measurement year
 - Documentation of weight only
- **Nutrition and Diet**
 - No counseling/education on nutrition and diet
 - Counseling/education prior to or after the measurement year
 - Notation of “health education” or “anticipatory guidance” without any mention of specifics indicating that nutrition was addressed
- **Physical Activity**
 - No counseling/education on physical activity
 - Notation of “cleared for gym class” alone without any of the aforementioned documentation
 - Counseling/education prior to or after the measurement year
 - Notation of “health education” or “anticipatory guidance” without any mention of specifics indicating that physical activity was addressed

The organization may calculate BMI from a height and weight documented in the medical record or other sources (e.g. health risk assessment) using the following formulas.

- $\text{weight (kg)} / [\text{height (m)}]^2$ *or*
- $\text{weight (lb)} \times 703 / [\text{height (in)}]^2$

The organization must calculate the BMI and document it in the medical record by the deadline established by the measure (December 31 of the measurement year). Documentation must include the date the height and weight were measured, the date the calculation was performed and the result (BMI).

Data Elements for Reporting

An MCO that submits HEDIS data to NCQA must provide the following data elements.

Table BCA-1/2: Data Elements for BMI Percentile Assessment (Children/Adolescents)

	Administrative	Hybrid
Measurement year	✓	✓
Data collection methodology (Administrative or Hybrid)	✓	✓
Eligible population	✓	✓
Number of numerator events by administrative data in eligible population (before exclusions)		✓
Current year's administrative rate (before exclusions)		✓
Minimum required sample size (MRSS) or other sample size		✓
Oversampling rate		✓
Final sample size (FSS)		✓
Number of numerator events by administrative data in FSS		✓
Administrative rate on FSS		✓
Number of original sample records excluded because of valid data errors		✓
Number of administrative data records excluded		✓
Number of medical record data records excluded		✓
Number of employee/dependent medical records excluded		✓
Records added from the oversample list		✓
Denominator		✓
Numerator events by administrative data	✓	✓
Numerator events by medical records		✓
Reported rate	✓	✓
Lower 95% confidence interval	✓	✓

**Proposed New Measure for HEDIS 2009:
Body Mass Index (BMI) Percentile Assessment and
Counseling for Nutrition and Physical Activity (BCA) Work-Up**

Information Required	Comment/Standardized Answer
ABSTRACT/IDENTIFYING INFORMATION	
Body Mass Index (BMI) Percentile Assessment and Counseling for Nutrition and Physical Activity (BCA)	
<p>Measure Collection: Identifies the name of the collection of measures to which the measure belongs (if applicable)</p>	<p>This measure is under development for consideration of inclusion in HEDIS® and NCQA Provider Recognition Programs</p>
<p>Measure Description: A concise statement about the measure that includes the specific aspects of healthcare addressed, the level of analysis, care or service settings, the time period the measure addresses (e.g., daily, yearly, monthly).</p> <p>Measure History: Past and current state of use of the measure; how long the measure has been used; the vetting process to ensure the integrity of the measure (e.g., use of technical advisory panels, Public Comment period) and any publications of studies (or in public reporting programs, such as the state) in which the performance of the measure is demonstrated.</p>	<p><input type="checkbox"/> Publications list attached</p> <p><input checked="" type="checkbox"/> There are no publications in which this measure was used</p> <p><input checked="" type="checkbox"/> Measure has only been field-tested</p> <p>Description: The percentage of members 2–17 years of age who had an outpatient office visit and who had evidence of the following during the measurement year:</p> <ul style="list-style-type: none"> • BMI Percentile Assessment • Counseling for Nutrition • Counseling for Physical Activity <p>Measure History: This is a potential new HEDIS measure that was field-tested in the summer of 2007. NCQA convened a Childhood/Adolescent Obesity Measurement Advisory Panel (MAP), consisting of experts in the field of pediatric obesity and related chronic conditions, general pediatrics and family medicine, measurement methodology and health services research, to advise on the development of performance measures focused on childhood and adolescent obesity. Based on the recommendations of the Childhood/Adolescent Obesity MAP, NCQA proposes that this measure be used at the health plan and physician levels.</p>
IMPORTANCE	
<p>Rationale for Measure: Briefly explains the importance of this measure (i.e., why it is used). The rationale should incorporate relevant statistics that illustrate the cost or burden of poor quality in this area and the availability of accepted tools, practices or information for improvement.</p>	<p><input type="checkbox"/> Replacement for a currently NQF-endorsed™ measure (provide name of measure)</p> <p><input type="checkbox"/> Complement to a currently NQF-endorsed™ measure (provide name of measure)</p> <p><input checked="" type="checkbox"/> No prior existing measure</p> <p><input type="checkbox"/> Other _____</p> <p>One of the most important developments in pediatrics in the past two decades has been the emergence of a new chronic disease: obesity in childhood and adolescence. The rapidly increasing prevalence of obesity among children is one of the most challenging dilemmas currently facing pediatricians. National Health and Nutrition Examination Survey (NHANES) data from Cycle II (1976–1980) compared with data from Cycle III (1988–1994) documents an increase in the prevalence of obesity in all age, ethnic, and gender groups. NHANES data collected from 1999–2000 revealed a continued increase in the number of obese children. In that recent data collection, the prevalence of obesity (BMI ≥95th percentile) was 10% among children 2–5 years of age and 15% among children 6–19 years of age. When children at risk for obesity (BMI of 85th–94th percentile) were included, the prevalence increased to 20% and 30%, respectively. Therefore, >1 of every 4 patients examined by pediatricians either is obese or is considered to be at high risk for developing this challenging health problem (O'Brien et al. 2004).</p>

Information Required	Comment/Standardized Answer
	<p style="text-align: center;">IMPORTANCE</p> <p>In addition to the growing prevalence of obesity in children and adolescents, the number of overweight children at risk of becoming obese is also of great concern. The Centers for Disease Control and Prevention (CDC) states that overweight children and adolescents are more likely to become obese as adults. For example, one study found that approximately 80% of children who were overweight at age 10–15 years were obese adults at age 25 years (Whitaker et al. 1997). Another study found that 25% of obese adults were overweight as children. The latter study also found that if overweight begins before 8 years of age, obesity in adulthood is likely to be more severe (Freedman et al. 2001).</p> <p>While obesity and overweight are prevalent in children and adolescents of all ethnic groups, there is significant variation among these groups. African American youths are known to be at higher risk of becoming obese than are non-Hispanic white children (O'Brien et al, 2004). In a 10-year study investigating the development of obesity in a cohort of 2,379 girls during adolescence, it was shown that, even at age 9, the prevalence of obesity was twice as high among black girls (18%), compared with white girls (8%) (Kimm et al. 2002).</p> <p>Screening for overweight or obesity begins in the provider's office with the calculation of BMI (weight in kilograms divided by height in meters²). Providers can estimate a child's BMI percentile for age and gender by plotting the calculated value of BMI on growth curves published and distributed by the CDC (Dorsey et al., 2005). BMI is also a useful screening tool for assessing and tracking the degree of obesity among adolescents. Medical evaluations should include investigation into possible endogenous causes of obesity that may be amenable to treatment, and identification of any obesity-related health complications (Inge et. al. 2004).</p> <p>Because BMI norms for youth vary with age and gender, BMI percentiles rather than absolute BMI must be determined. The cutoff values to define the heaviest children are the 85th and 95th percentiles. In adolescence, as maturity is approached, the 85th percentile roughly approximates a BMI of 25, which is the cutoff for overweight in adults and the 95th percentile roughly approximates a BMI of 30, which is the cutoff for obesity in adults. The cutoff recommended by an expert committee to define overweight (BMI \geq95th percentile) is a conservative choice designed to minimize the risk of misclassifying non-obese children (Baker et al., 2005). About two-thirds of young people in grades 9–12 are not engaged in recommended levels of physical activity. Daily participation in high school physical education classes dropped from 42% in 1991 to 33% in 2005 (CDC 2007).</p> <p>In the past 30 years, the prevalence of overweight and obesity has increased sharply for children. Among young people, the prevalence of overweight increased from 5.0%–13.9% for those aged 2–5 years, 6.5%–18.8% for those aged 6–11 years, and 5.0%–17.4% for those aged 12–19 years. The estimated total cost of obesity in the United States in 2000 was about \$117 billion. Promoting regular physical activity and healthy eating, and creating an environment that supports these behaviors, are essential to addressing the problem (CDC 2007).</p> <p>References</p> <p>Baker, S., S. Barlow, W. Cochran, G. Fuchs, W. Klish, N. Krebs, R. Strauss, A. Tershakovec, J. Udall. Overweight children and adolescents: a clinical report of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. <i>J Pediatr Gastroenterol Nutr.</i> 2005 May; 40(5):533-43.</p> <p>Centers for Disease Control and Prevention (CDC). <i>Physical activity and good nutrition: essential elements to prevent chronic diseases and obesity.</i> Atlanta (GA); National Center for Chronic Disease Prevention and Health Promotion; 2007 April. 1-4 pgs.</p> <p>Freedman, D.S., L.K. Khan, W.H. Dietz, S.R. Srinivasan, G.S. Berenson. Relationship of childhood overweight to coronary heart disease risk factors in adulthood: The Bogalusa Heart Study. <i>Pediatrics.</i> 2001; 108:712–718.</p> <p>Inge, T.H., N.F. Krebs, V.F. Garcia, J.A. Skelton, K.S. Guice, R. S. Strauss, C.T. Albanese, M.L. Brandt, L.D. Hammer, C.M. Harmon, T.D. Kane, W.J. Klish, K.T. Oldham, C.D. Rudolph, M.A. Helmuth, E. Donovan, S.R. Daniels. Bariatric surgery for severely overweight adolescents: concerns and recommendations. <i>Pediatrics.</i> 2004 Jul; 114(1):217-23.</p> <p>Kimm, S.Y.S., B.A. Barton, E. Obarzanek, et al. Obesity development during adolescence in a biracial cohort: the NHLBI growth and health study. <i>Pediatrics</i> 2002; 110(5). www.pediatrics.org/cgi/content/full/110/5/e54</p> <p>Goldfield, G.S., L.H. Epstein, C.K. Kilanowski, R.A. Paluch, B. Kogut-Bossler. Cost-effectiveness of group and mixed family-based treatment for childhood obesity. <i>Int'l J of Obesity.</i> 2001. 25, 1843-1849.</p>

Information Required	Comment/Standardized Answer
	IMPORTANCE
<p>Key Leverage Point: Provides a description of the current gap between actual and potential performance that allows room for improvement. Key leverage point includes description of:</p> <ul style="list-style-type: none"> • Variation in quality. Geographic, demographic, coverage, or other factors. • Significant opportunity for improvement. Performance in the area is substandard, and thus significant opportunity exists for improvement. This may be independent of variation, in cases where quality is consistently poor. • Relevance to consumers or purchasers (e.g., safety concerns). Variation in costs/resource utilization (i.e., underuse, overuse or misuse). 	<p>O'Brien, S.H., R. Holubkov, E.C. Reis. Identification, evaluation, and management of obesity in an academic primary care center. <i>Pediatrics</i>. 2004 Aug; 114: 154-159</p> <p>Whitaker, R.C., J.A. Wright, M.S. Pepe, K.D. Seidel, W.H. Dietz. Predicting obesity in young adulthood from childhood and parental obesity. <i>N Engl J Med</i>. 1997. 37(13):869–873.</p> <p>The economic costs of obesity and related comorbidities have been estimated at over \$70 billion, or 7% of the national health care budget. Developing effective interventions for obese children may reduce morbidity and mortality in adulthood, as well reduce the economic costs associated with treating obesity-related diseases (Goldfield et al. 2001), but according to a study examining the trend of obesity-associated diseases in youth and related economic costs, data related to health care resource utilization for overweight children are limited. One estimate suggests that obesity-associated inpatient or hospitalization costs have risen threefold, from \$35 million (1979–1981) to \$127 million (1997–1999), though hospital utilization only reflects a portion of the burden of care for overweight and obese children (Dietz and Wang 2002).</p> <p>There is significant opportunity for improvement of performance in this area based on two studies done to determine the rates of diagnosis and treatment for overweight and obesity in children and adolescents. Both studies indicated a high burden of overweight among the pediatric population. One study indicated that routine screening with BMI was not documented and few children received a formal diagnosis or treatment (Dorsey et al. 2005). The other study indicated that there was significant undercoding of the diagnosis of obesity in the study sample where most children with BMIs in the 95th percentile or higher for gender and age did not have a diagnosis of obesity recorded in their medical records (Hampl et al. 2007).</p> <p>The relevance and meaningfulness of this measure for consumers, purchasers and providers is likely to be moderate to high. Parents of at-risk or overweight children are a key resource in identifying and understanding changes in their children's weight. Results from the 1999–2002 NHANES, using height and weight measurements, indicate that an estimated 16% of children and adolescents ages 6–19 years are overweight. From 1999–2002, the prevalence of overweight among children ages 6–11 years increased from an estimated 7% to 11%, and among adolescents ages 12–19 years increased from 5% to 11% (Hedley et al. 2004).</p> <p>While the evidence supporting counseling as an intervention is not strong, age-specific dietary modification is considered to be the cornerstone of treatment. The major goals in dietary management are to provide appropriate calorie intake, provide optimum nutrition for the maintenance of health and normal growth, and to help the child develop and sustain healthful eating habits. The most recent Dietary Reference Intakes recommend a fat intake of 30%–40% kcal in children 1–3 years old, with a reduction to 25%–35% in children 4–18 years old (compared with 20%–35% in adults); a carbohydrate intake of 45%–65% kcal in all children and adults; and protein intakes of 5%–20% kcal in children 1–3 years old with a gradual increase to 10%–30% kcal in children 4–18 years old (compared with 10%–35% kcal in adults) (Daniels et al. 2005).</p> <p>References</p> <p>Dietz W.H., G. Wang. Economic burden of obesity in youths aged 6 to 17 years: 1979–1999. <i>Pediatrics</i> 2002; 109:e81.</p> <p>Dorsey, K.B., C. Wells, H.M. Krumholz, J.C. Concato. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. <i>Arch Pediatr Adolesc Med</i>. 2005. July; 159:632-638.</p> <p>Hampl, S.E., C.A. Carroll, S.D. Simon, V. Sharma. Resource utilization and expenditures for overweight and obese children. <i>Arch Pediatr Adolesc Med</i>. 2007. Jan; 161:11-14.</p> <p>Hedley, A.A., C.L. Ogden, C.L. Johnson, M.D. Carroll, L.R. Curtin, K.M. Flegal. Prevalence of overweight and obesity among US children, adolescents, and adults, 1999-2002. <i>JAMA</i>. 2004. Jun; 291:2847-2850.</p>

Information Required	Comment/Standardized Answer	
IMPORTANCE		
	<p>American Heart Association Nutrition Committee, A.H. Lichtenstein, L.J. Appel, M. Brands, M. Carnethon, S. Daniels, H.A. Franch, B. Franklin, P. Kris-Etherton, W.S. Harris, B. Howard, N. Karanja, M. Lefevre, L. Rudel, F. Sacks, L. Van Horn, M. Winston, J. Wylie-Rosett. Diet and lifestyle recommendations revision 2006: a scientific statement from the American Heart Association Nutrition Committee. <i>Circulation</i>. 2006. Jul 4;114(1):82-96. [97 references]</p> <p>Daniels, S.R., D.K. Arnett, R.H. Eckel, S.S. Gidding, L.L. Hayman, S. Kumanyika, T.N. Robinson, B.J. Scott, S. St Jeor, C.L. Williams. Overweight in children and adolescents: pathophysiology, consequences, prevention, and treatment. <i>Circulation</i>. 2005. Apr 19;111(15):1999-2012. [103 references]</p> <p>Goldfield, G.S., L.H. Epstein, C.K. Kilanowski, R.A. Paluch, B. Kogut-Bossler. Cost-effectiveness of group and mixed family-based treatment for childhood obesity. <i>Int'l J of Obesity</i>. 2001. 25, 1843-1849.</p>	
SCIENTIFIC ACCEPTABILITY		
<p>Evidence Supporting Measure Domain Selected: Supporting evidence appropriate for the measure domain.</p> <ul style="list-style-type: none"> For process measures, evidence that the measured clinical or administrative process led to improved health or cost/benefit. 	<p><input checked="" type="checkbox"/> Evidence Attached <input type="checkbox"/> Evidence not available</p> <p>Guideline Recommendations:</p> <p style="text-align: center;">SEE GUIDELINE CROSSWALK ATTACHED</p>	
<p>Data Source: The data source necessary to implement the measure (e.g., administrative data only, clinician survey, medical record only, patient survey only or a hybrid method).</p> <ul style="list-style-type: none"> Specifications for using data sources should be described If more than one data source can be used to calculate the measure, evidence supporting the comparability of the sources should be provided. For EHRs, provide any additional detail necessary specific for use of the measure in this medium. 	<p><input type="checkbox"/> Administrative and laboratory data <input checked="" type="checkbox"/> Administrative and medical record data <input type="checkbox"/> Administrative and pharmacy data <input type="checkbox"/> Administrative and provider data <input type="checkbox"/> Administrative data only <input type="checkbox"/> Administrative and clinician survey <input type="checkbox"/> Administrative and patient survey <input type="checkbox"/> Clinician survey only</p>	<p><input type="checkbox"/> Patient survey only <input type="checkbox"/> Laboratory data only <input type="checkbox"/> Medical record data only <input checked="" type="checkbox"/> Paper medical record <input checked="" type="checkbox"/> Electronic health record <input type="checkbox"/> Observational data (e.g., compliance measures that require observation of practices) <input type="checkbox"/> Other _____</p>
<p>Denominator Inclusions/Exclusions: The specific inclusion and exclusion criteria used to refine the denominator. Include all relevant codes (e.g., ICD-9, CPT, G-codes).</p>	<p>Exclusions:</p> <p><input type="checkbox"/> Contraindications <input type="checkbox"/> Age <input type="checkbox"/> Comorbid conditions</p> <p>Inclusions: All members 2–17 years of age with an outpatient visit as of December 31 of the measurement year.</p>	
<p>Denominator Time Window: Classifies the time period (in association with the denominator index event) in which patients are reviewed for inclusion in the denominator.</p>	<p>The measurement year.</p>	

Information Required	Comment/Standardized Answer
SCIENTIFIC ACCEPTABILITY	
<p>Numerator Event: Identifies the event or state that defines a patient eligible for inclusion in the numerator (e.g., clinical condition, diagnostic encounter, office visit, hospitalization).</p>	<p>Documentation of BMI percentile, counseling for nutrition and counseling for physical activity during the measurement year as identified by administrative data or medical record review.</p>
<p>Numerator Inclusions/Exclusions: The specific inclusion and exclusion criteria used to refine the numerator. Exclusions related to patient preferences should also be included where appropriate.</p>	<p>Exclusions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Contraindications <input type="checkbox"/> Age <input type="checkbox"/> Comorbid conditions <input type="checkbox"/> Stage of illness <input type="checkbox"/> Time of index event <input type="checkbox"/> Other: _____ <p>Documentation of BMI percentile and counseling on nutrition and physical activity in the medical record during the measurement year. Documentation must include evidence of any of the following:</p> <p>BMI Percentile Assessment:</p> <ul style="list-style-type: none"> • BMI percentile value • BMI percentile plotted on age-growth chart • For adolescents 16 or 17 years of age, documentation of a BMI value expressed as kg/m² is acceptable. <p>Counseling for Nutrition and Physical Activity</p> <ul style="list-style-type: none"> • Assessment of current nutrition behaviors and/or current physical activity behaviors • Checklist indicating nutrition and/or physical activity was addressed • Counseling or referral for nutrition and/or physical activity • Member received educational materials on nutrition and/or physical activity • Anticipatory guidance for nutrition and/or physical activity
<p>Numerator Time Window: Identifies the time period in which patients are reviewed for inclusion in the numerator.</p>	<p>The measurement year.</p>

Information Required	Comment/Standardized Answer
USABILITY	
<p><i>Measure Benchmarks:</i> The best performance or range of performance for the measure. How have these benchmarks been used?</p>	<p><input checked="" type="checkbox"/> Benchmark data attached <input type="checkbox"/> There are no benchmark data</p> <p>Field-test results indicated that when calculating the measure based on BMI percentile documentation without a visit, 1% of children’s medical records had BMI percentile documented in 2005; this number increased to 1.5% in 2006. The rates for nutrition and physical activity counseling were much higher; however, the plans were allowed to report documentation of these two components at any time in the past two years, vs. only 2005 or 2006. Using medical records, the rate for documentation of counseling for nutrition was 68.1%, and for physical activity the rate was 44.5%.</p> <p>Field-test sites also provided information on eligible population size by plan and product, and analysis was done to see how many children from the plans’ membership would be eligible for the measure if it were visit-based. The percentage of children/adolescents (ages 2–17 years) with outpatient and well-child visits in 2005 and 2006 showed considerable variation between plans, but Plan B had some difficulty in providing visit-level data, thus is not included in the following estimates.</p> <p>It is anticipated that if the measure was specified with an annual documentation requirement, 48% (range 45%–51%) of children/adolescents would qualify based on having a well-child visit in the measurement year (2006 for the field-test), and that number would increase to 72% (range 62%–82%) if expanded to include any outpatient visit.</p>
QUALITY OF SUPPORTING EVIDENCE	
<p><i>Quality of Evidence:</i> To further improve and bring more transparency to the NQF process, all measure developers are required to grade the level of evidence submitted with measures. Developers are requested to use the United States Preventive Services Task Force (USPSTF) rating system on all evidence submitted:</p> <p>The USPSTF grades the quality of the overall evidence for a service on a three-point scale (Good, Fair, Poor).</p> <ul style="list-style-type: none"> • Good. Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes. • Fair. Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes. • Poor. Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes. <p>More information on USPSTF and its rating system can be accessed at http://www.ahrq.gov/clinic/3rduspstf/ratings.htm.</p>	<p>In general, the overall quality of evidence for this specific measure is Fair.</p> <p>There are a number of clinical guidelines stating that BMI assessment is the first step in treating overweight and obesity, but the impact of this assessment has not been tested to see how it will directly impact the prevalence and severity of the condition.</p>

BMI Percentile Assessment and Counseling for Nutrition and Physical Activity (BCA) Summary of Clinical Guidelines

BMI and BMI Percentile Assessment		
Guideline	Recommendation	Level of Evidence/Rating (if applicable)
<p>U.S. Preventive Services Task Force (USPSTF) <i>Full Citation:</i> Screening and interventions for overweight in children and adolescents: recommendation statement. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005. 11 p. [39 references]</p>	<p>Insufficient evidence to recommend for or against routine screening for overweight in children and adolescents <i>as a means to prevent adverse health outcomes</i>. However, the Task Force recognized that it is important to measure and monitor growth over time in all children as an indicator of health and development. The number of children and adolescents who are overweight has more than doubled since the early 1970s, with the prevalence of overweight (BMI = 95th percentile for age and sex) for children aged 6–19 years now at approximately 15%.</p>	<p>“I” Recommendation. Insufficient evidence to recommend for or against screening for overweight in children and adolescents reflects the paucity of strong evidence of the effectiveness of interventions for this problem in the clinical setting.</p>
<p>The American Academy of Pediatrics (AAP) <i>Full Citation:</i> National High Blood Pressure Education Program Working Group on High Blood Pressure in Children. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. <i>Pediatrics</i>. 2004 Aug; 114(2 Suppl):555-76. [138 references]</p>	<p>The child’s height, weight and percentiles for age should be determined at the start of the physical examination. Because obesity is strongly linked to hypertension, BMI should be calculated from the height and weight, and the BMI percentile should be calculated. Poor growth may indicate an underlying chronic illness.</p>	<p>Evidence level not indicated.</p>
<p>The American Medical Association (AMA), Health Resources and Services Administration (HRSA), and Centers for Disease Control and Prevention (CDC) <i>Full Citation:</i> AMA/HRSA/ CDC Expert Committee on the Assessment, Prevention and Treatment of Child and Adolescent Overweight and Obesity. Recommendations on the assessment, prevention and treatment of child and adolescent overweight and obesity. Chicago (IL): AMA. 2007 Jun. 1p</p>	<p>The Expert Committee recommends that physicians and allied healthcare providers perform, at a minimum, a yearly assessment of weight status in all children, and that this assessment include calculation of height, weight (measured appropriately), and body mass index (BMI) for age and plotting of those measures on standard growth charts.</p>	<p>Evidence level not indicated.</p>
<p>The American Academy of Pediatrics and the American College of Clinical Endocrinology (ACCE) <i>Full Citation:</i> Dorsey, K.B., C. Wells, H.M. Krumholz, J.C. Concato. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. <i>Arch Pediatr Adolesc Med</i>. 2005. July; 159:632-638.</p>	<p>The AAP and the ACCE recommend and encourage pediatric providers to screen children for obesity using BMI; examine overweight children for obesity-related diseases; initiate weight management practices to improve diet and physical activity habits; and increase frequency of visits to reinforce behavior changes.</p>	<p>Evidence level not indicated.</p>

BMI and BMI Percentile Assessment		
Guideline	Recommendation	Level of Evidence/Rating (if applicable)
The Centers for Disease Control and Prevention (CDC) Full Citation: Baker, S., S. Barlow, W. Cochran, G. Fuchs, W. Klish, N. Krebs, R. Strauss, A. Tershakovec, J. Udall. Overweight children and adolescents: a clinical report of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. <i>J Pediatr Gastroenterol Nutr.</i> 2005. May; 40(5):533-43.	The CDC recommends using the percentile BMI for age and gender as the most appropriate and easily available method to screen for childhood overweight or at risk for overweight. BMI is calculated by dividing the weight in kilograms by the height in meters squared. Age and gender norms for BMI are readily accessible. BMI correlates with adiposity and with complications of childhood overweight such as hypercholesterolemia, hypertension and later development of cardiovascular disease. Although more precise measures of lean body mass and body fat such as dual x-ray absorptiometry (DEXA) may be appropriate for clinical studies, BMI norms are particularly helpful for screening in busy office practices and for population assessment.	Evidence level not indicated.
Institute for Clinical Systems Improvement (ICSI) Full Citation: Preventive services for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005. Oct. 68 p. [109 references]	Height, weight and BMI should be recorded annually beginning at age 2 as a part of a normal visit schedule.	Evidence level not indicated.
Counseling for Nutrition		
USPSTF Full Citation: Behavioral counseling in primary care to promote a healthy diet: recommendations and rationale. <i>Am J Prev Med.</i> 2003. Jan;24(1):93-100. [54 references]	The USPSTF concluded that intensive counseling is likely to improve important health outcomes and that benefits outweigh potential harms, but no controlled trials of intensive counseling in children or adolescents that measured diet were identified.	Evidence level not indicated.
AAP Full Citation: Krebs, N.F., J.H. Himes, D. Jacobson, T.A. Nicklas, P. Guilday, D. Styne. Assessment of child and adolescent overweight and obesity. <i>Pediatrics</i> 2007 Dec;120:S193-S228.	The AAP recommends that assessment of dietary patterns among children and adolescents should address: 1) assessment of self-efficacy and readiness for change, 2) qualitative assessment of dietary patterns, and 3) working in conjunction with patients and families to identify dietary practices that are targets for change. Qualitative assessment of dietary patterns should be performed for all pediatric patients at each clinic visit, at a minimum, for anticipatory guidance. Assessment should address dietary practices for which evidence supports a positive association with energy intake and behaviors for some individuals and that represent behaviors that can be targeted for change.	Evidence level not indicated.
Department of Health and Human Services (DHHS) Full Citation: U.S. Department of Health and Human Services, U.S. Department of Agriculture. Dietary guidelines for Americans, 2005. Washington (DC): U.S. Department of Health and Human Services, U.S. Department of Agriculture; 2005. 71 p.	Those that need to lose weight should aim for a slow, steady weight loss by decreasing calorie intake while maintaining an adequate nutrient intake and increasing physical activity. Overweight children should reduce the rate of body weight gain while allowing growth and development. There should be consultation with a health care provider before placing a child on a weight-reduction diet.	Evidence level not indicated.

Counseling for Physical Activity		
Guideline	Recommendation	Level of Evidence/Rating (if applicable)
<p>USPSTF Full Citation: Behavioral counseling in primary care to promote physical activity: recommendation and rationale. <i>Ann Intern Med.</i> 2002. Aug 6;137(3):205-7.</p> <p>Screening and interventions for overweight in children and adolescents: recommendation statement. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005. 11 p. [39 references]</p>	<p>In 2002, while the USPSTF had made a recommendation for adults, there were no completed trials with children or adolescents that compared counseling with usual care practices. Data on the feasibility and potential harms of routine physical activity counseling in primary care settings were limited. The USPSTF reviewed only the literature on the effectiveness of primary care counseling to promote physical activity. It did not review the evidence for the effectiveness of physical activity to reduce chronic disease morbidity and mortality, which has been well documented in other recent reviews, or review evidence of counseling in other settings.</p> <p>In 2005, the USPSTF concluded there was little evidence for effective, family-based or individual approaches for the treatment of overweight in children and adolescents in primary care settings. The CDC's <i>Guide to Community Preventive Services</i> has identified effective population-based interventions that have been shown to increase physical activity, which may help reduce childhood overweight.</p>	Evidence level not indicated.
<p>AAP Full Citation: Krebs, N.F., J.H. Himes, D. Jacobson, T.A. Nicklas, P. Guilday, D. Styne. Assessment of child and adolescent overweight and obesity. <i>Pediatrics.</i> 2007. Dec;120:S193-S228.</p>	<p>For physical activity assessment, the AAP recommends four general categories to be addressed in the assessment of physical activity among children and adolescents, as follows: 1) self-efficacy and readiness for change, 2) environment and social support, 3) level of physical activity, and 4) level of sedentary behavior. Assessment of physical activity levels should be performed for all pediatric patients at least at each well-child visit for anticipatory guidance, to determine whether they are meeting recommendations of 60 minutes of at least moderate physical activity per day. Assessment of sedentary behaviors such as watching television and/or DVDs, playing video games, and using the computer should be performed at each well-child visit, in comparison with a suggested baseline of <2 hours/day.</p>	Evidence level not indicated.
<p>American Heart Association (AHA) Full Citation: American Heart Association Nutrition Committee, A.H. Lichtenstein, L.J. Appel, M. Brands, M. Carnethon, S. Daniels, H.A. Franch, B. Franklin, P. Kris-Etherton, W.S. Harris, B. Howard, N. Karanja, M. Lefevre, L. Rudel, F. Sacks, L. Van Horn, M. Winston, J. Wylie-Rosett. Diet and lifestyle recommendations revision 2006: a scientific statement from the American Heart Association Nutrition Committee. <i>Circulation.</i> 2006. Jul 4;114(1):82-96. [97 references]</p>	<p>The AHA recommends at least 60 minutes of physical activity most days of the week for children who are attempting to lose weight or maintain weight loss. The physical activity can be accumulated throughout the day.</p>	Evidence level not indicated.
<p>DHHS Full Citation: U.S. Department of Health and Human Services, U.S. Department of Agriculture. Dietary guidelines for Americans, 2005. Washington (DC): U.S. Department of Health and Human Services, U.S. Department of Agriculture; 2005. 71 p.</p>	<p>Engaging in regular physical activity and reducing sedentary activities to promote health, psychological well-being and a healthy body weight will help to reduce the risk of chronic disease in adulthood. Engage in at least 30 minutes of moderate-intensity physical activity, above usual activity, at work or home on most days of the week.</p>	Evidence level not indicated.