NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the submitting standards web page.

NQF #: 0024   **NQF Project:** Population Health: Prevention Project
(for Endorsement Maintenance Review) **Original Endorsement Date:** Aug 10, 2009   **Most Recent Endorsement Date:** Aug 10, 2009 **Last Updated Date:** May 02, 2012

BRIEF MEASURE INFORMATION
De.1 Measure Title: Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents
Co.1.1 Measure Steward: National Committee for Quality Assurance
De.2 Brief Description of Measure: =Percentage of children 3-17 years of age who had an outpatient visit with a primary care physician (PCP) or an OB/GYN and who had evidence of body mass index (BMI) percentile documentation, counseling for nutrition and counseling for physical activity during the measurement year.
2a1.1 Numerator Statement: Body mass index (BMI) percentile documentation, counseling for nutrition and counseling for physical activity during the measurement year.
2a1.4 Denominator Statement: Children 3-17 years of age with at least one outpatient visit with a primary care physician (PCP) or OB-GYN.
2a1.8 Denominator Exclusions: Optional Exclusion: Children who have a diagnosis of pregnancy during the measurement year.
1.1 Measure Type: Process **2a1. 25-26 Data Source:** Paper Medical Records **2a1.33 Level of Analysis:** Clinician : Individual, Health Plan, Population : National **1.2-1.4 Is this measure paired with another measure?** No **De.3 If included in a composite, please identify the composite measure** (*title and NQF number if endorsed*)**:**

STAFF NOTES (*issues or questions regarding any criteria*)
Comments on Conditions for Consideration:
Is the measure untested? Yes ☐   No ☐   **If untested, explain how it meets criteria for consideration for time-limited endorsement:**
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*)**:** **5. Similar/related endorsed or submitted measures** (*check 5.1*)**:** **Other Criteria:**
Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT
Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence. *Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria.*

(evaluation criteria)

1a. High Impact: H☐ M☐ L☐ I☐
(*The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.*)

De.4 Subject/Topic Areas (*Check all the areas that apply*): Prevention, Prevention : Development/Wellness, Prevention : Obesity, Prevention : Physical Activity **De.5 Cross Cutting Areas** (*Check all the areas that apply*): Population Health

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, A leading cause of morbidity/mortality, Patient/societal consequences of poor quality, Severity of illness

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact (*Provide epidemiologic or resource use data*):
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).

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).

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).

1a.4 Citations for Evidence of High Impact cited in 1a.3: 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.Circulation. 2006. Jul 4;114(1):82-96. [97 references]
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. J Pediatr Gastroenterol Nutr. 2005 May; 40(5):533-43.
Centers for Disease Control and Prevention (CDC). Physical activity and good nutrition: essential elements to prevent chronic diseases and obesity. Atlanta (GA); National Center for Chronic Disease Prevention and Health Promotion; 2007 April. 1-4 pgs.
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. Circulation. 2005. Apr 19;111(15):1999-2012. [103 references]
Dietz W.H., G. Wang. Economic burden of obesity in youths aged 6 to 17 years: 1979–1999. Pediatrics 2002; 109:e81.
Dorsey, K.B., C. Wells, H.M. Krumholz, J.C. Concato. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. Arch Pediatr Adolesc Med. 2005. July; 159:632-638.
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. Pediatrics.2001; 108:712–718.

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. Int'l J of Obesity. 2001. 25, 1843-1849.

Hampl, S.E., C.A. Carroll, S.D. Simon, V. Sharma. Resource utilization and expenditures for overweight and obese children. Arch Pediatr Adolesc Med. 2007. Jan; 161:11-14.

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. JAMA. 2004. Jun; 291:2847-2850.

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. Helmrath, E. Donovan, S.R. Daniels. Bariatric surgery for severely overweight adolescents: concerns and recommendations. Pediatrics. 2004 Jul; 114(1):217-23.

O'Brien, S.H., R. Holubkov, E.C. Reis. Identification, evaluation, and management of obesity in an academic primary care center. Pediatrics. 2004 Aug; 114; 154-159

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. N Engl J Med. 1997. 37(13):869–873.

1b. Opportunity for Improvement: H☐ M☐ L☐ I☐
(*There is a demonstrated performance gap - variability or overall less than optimal performance*)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:
For children who are overweight or obese, obesity in adulthood is likely to be more severe. Children's weight status is an important thing to monitor. Children need guidance on maintaining healthy eating and exercising habits.

1b.2 Summary of Data Demonstrating Performance Gap (*Variation or overall less than optimal performance across providers*)**:**
[*For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]
Commercial
BMI Percentile - Total
Data Element; 2009; 2008; 2007
N;171; 157; .
MEAN; 35.4; 29.7; .
STDEV; 24.6; 22.3; .
STDERR; 1.88; 1.78;.
MIN; 0; 0; .
MAX; 95.6; 98.5; .
P10; 0.44; 0.2; .
P25; 18.2; 14.6; .
P50; 33.3; 25.8; .
P75; 53; 42.8; .
P90; 68.4; 63.3; .

Nutrition Counseling
Data Element;2009; 2008; 2007
N; 171; 159; .
MEAN; 41; 39.7; .
STDEV; 23.4; 22.7; .
STDERR; 1.79; 1.8; .
MIN; 0.06; 0; .
MAX; 100; 87.1; .
P10; 0.46; 0.25; .
P25; 29.9; 26.8; .
P50; 45.4; 44.3; .
P75;55.5; 54.7; .
P90; 67.6; 67.6; .

Physical Activity Counseling
Data Element; 2009; 2008; .
N; 171; 159; .
MEAN; 36.5; 34.8; .
STDEV; 22; 21.4; .
STDERR; 1.68; 1.7; .
MIN; 0; 0; .
MAX; 100; 76.4; .
P10; 0.01; 0.01; .
P25; 25.1; 18.8; .
P50; 38.2; 37.2; .
P75; 51.2; 50.1; .
P90; 64.4; 61.3; .

Medicaid
BMI Percentile - Total
Data Element; 2009; 2008; .
N; 126; 88; .
MEAN; 30.3; 21.3; .
STDEV; 23.1; 19.5; .
STDERR; 2.05; 2.08; .
MIN; 0.01; 0; .
MAX; 95.5; 99.3; .
P10; 0.34; 0.1; .
P25; 13; 2.58; .
P50; 29.3; 16.9; .
P75; 45.2; 34.1; .
P90; 63; 47.4; .

Nutrition Counseling
Data Element; 2009; 2008; .
N; 126; 88; .
MEAN; 41.9; 35.5; .
STDEV; 22.6; 24.1; .
STDERR; 2.01; 2.57; .
MIN; 0; 0.03; .
MAX; 83.8; 96.6; .
P10; 0.4; 0.29; .
P25; 34.3; 7.68; .
P50; 46.2; 40.5; .
P75; 57.7; 53; .
P90; 67.9; 64; .

Physical Activity Counseling
Data Element; 2009; 2008; .
N; 126; 88; .
MEAN; 32.5; 26.5; .
STDEV; 19; 19.5; .
STDERR; 1.69; 2.08; .
MIN; 0; 0; .
MAX; 74.2; 79.3; .
P10; 0.01; 0.01; .
P25 ; 22.9; 0.11; .

P50; 35.3; 29.8; .
P75; 45.5; 39.7; .
P90; 56.7; 51.6; .

1b.3 Citations for Data on Performance Gap: [*For Maintenance* – *Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Section 1b.2 references data from the most recent three years of measurement for HEDIS. Some rates and measures are new, therefore data might only be available for one or two years. The data in section 1b.2 includes percentiles, mean, min, max, standard deviation and standard error. There were 837 submissions for this measure/rate.

BMI Percentile - Total
Frequency: 837

Nutrition Counseling
Frequency: 837

Physical Activity Counseling
Frequency: 837

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance* –*Descriptive statistics for performance results for this measure by population group*]
NCQA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, employer) should capture and report this data. While "requiring" reporting of the data could push the field forward, it has been our position that doing so would create substantial burden with inability to use the data because of its inconsistency. At the present time, we agree with the IOM report that disparities are best considered by the use of zip code analysis which has limited applicability in most reporting situations. At the health plan level, for HEDIS health plan data collection, NCQA does have extensive data related to our use of stratification by insurance status (Medicare, Medicaid and private-commercial) and would strongly recommend this process where the data base supporting the measurement includes this information. However, we believe that the measure specifications should NOT require this since the measure is still useful where the data needed to determine disparities cannot be ascertained from the data available.

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance* – *Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
N/A

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome? Yes☐ No☐   If not a health outcome, rate the body of evidence.

Quantity: H☐ M☐ L☐ I☐   Quality: H☐ M☐ L☐ I☐   Consistency: H☐ M☐ L☐ I☐

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	**M-H**	**M-H**	Yes☐
L	**M-H**	**M**	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise **No**☐
M-H	**L**	**M-H**	Yes☐ IF potential benefits to patients clearly outweigh potential harms: otherwise **No**☐
L-M-H	**L-M-H**	**L**	No ☐
Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service		**Does the measure pass subcriterion1c?** **Yes**☐ IF rationale supports relationship	

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)***:**

1c.2-3 Type of Evidence *(Check all that apply)***:**
Clinical Practice Guideline

1c.4 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)***:**
Screening for overweight or obesity begins in the provider's office with the calculation of BMI (weight in kilograms divided by height in meters). 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).

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 >95th 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).

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).
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).

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).
In addition, based on NCQA field-test-results, there is variation between organizations and the potential for improvement seems to be high.

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)***:** The measure is based on a USPSTF guideline that is based on a comprehensive meta-analysis (see USPSTF report for full number of studies)

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients

across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events): High

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* Consistent

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
The USPSTF determined there was a positive net benefit

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: USPSTF

1c.11 System Used for Grading the Body of Evidence: USPSTF

1c.12 If other, identify and describe the grading scale with definitions:

1c.13 Grade Assigned to the Body of Evidence:

1c.14 Summary of Controversy/Contradictory Evidence: 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.

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
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.Circulation. 2006. Jul 4;114(1):82-96. [97 references]
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 PediatricGastroenterology, Hepatology and Nutrition. J Pediatr Gastroenterol Nutr. 2005 May; 40(5):533-43.
Centers for Disease Control and Prevention (CDC). Physical activity and good nutrition: essential elements to prevent chronic diseases and obesity. Atlanta (GA); National Center for Chronic Disease Prevention and Health Promotion; 2007 April. 1-4 pgs.
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. Circulation. 2005. Apr 19;111(15):1999-2012. [103 references]
Dietz W.H., G. Wang. Economic burden of obesity in youths aged 6 to 17 years: 1979–1999. Pediatrics 2002; 109:e81.
Dorsey, K.B., C. Wells, H.M. Krumholz, J.C. Concato. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. Arch Pediatr Adolesc Med. 2005. July; 159:632-638.
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. Pediatrics.2001; 108:712–718.
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Hampl, S.E., C.A. Carroll, S.D. Simon, V. Sharma. Resource utilization and expenditures for overweight and obese children. Arch Pediatr Adolesc Med. 2007. Jan; 161:11-14.
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. JAMA. 2004. Jun; 291:2847-2850.
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. Helmrath, E.Donovan, S.R. Daniels. Bariatric surgery for severely overweight adolescents: concerns and recommendations. Pediatrics. 2004 Jul; 114(1):217-23.

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. Pediatrics 2002; 110(5). www.pediatrics.org/cgi/content/full/110/5/e54

O'Brien, S.H., R. Holubkov, E.C. Reis. Identification, evaluation, and management of obesity in an academic primary care center. Pediatrics. 2004 Aug; 114; 154-159

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. N Engl J Med. 1997. 37(13):869–873.

1c.16 Quote verbatim, <u>the specific guideline recommendation</u> *(Including guideline # and/or page #)***:**

U.S. Preventive Services Task Force (USPSTF) (2010)

Grade: B recommendation. The USPSTF recommends that clinicians screen children aged 6 years and older for obesity and offer them or refer them to comprehensive, intensive behavioral interventions to promote improvement in weight status.

Institute for Clinical Systems Improvement (ICSI) (2007)

Height, weight and BMI should be recorded annually beginning at age 2 as a part of a normal visit schedule. (Level III)

American Academy of Pediatrics (AAP) (2004)

BMI should be calculated from the height and weight, and the BMI percentile should be calculated

American Medical Association (AMA), Centers for Disease Control and Prevention (CDC), Health Resources and Services Administration (HRSA) (2007)

At minimum, a yearly assessment of weight status in all children. Include calculation of height, weight (measured appropriately), and body mass index (BMI) for age and plotting of those measures on standard growth charts.

The AAP & the American College of Clinical Endocrinology (ACCE) (2005)

Screen children for obesity using BMI and examine overweight children for obesity-related diseases

CDC (2005)

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.

Bright Futures (AAP) (2008)

Calculate BMI at every visit

1c.17 Clinical Practice Guideline Citation: Screening for Obesity in Children and Adolescents, Topic Page. January 2010. U.S. Preventive Services Task Force. http://www.uspreventiveservicestaskforce.org/uspstf/uspschobes.htm

Institute for Clinical Systems Improvement. Preventive Services for Children and Adolescents Thirteenth Edition. October 2007

[AAP] 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. Pediatrics. 2004 Aug; 114(2 Suppl):555-76.

[AMA, etc] 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

[ACCE, etc] Dorsey, K.B., C. Wells, H.M. Krumholz, J.C. Concato. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. Arch Pediatr Adolesc Med. 2005. July; 159:632-638.

[CDC] 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. J Pediatr Gastroenterol Nutr. 2005. May; 40(5):533-43.

Hagan, JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, Third Edition. Elk Grove, IL: American Academy of Pediatrics

1c.18 National Guideline Clearinghouse or other URL:

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? Yes

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: USPSTF

1c.21 System Used for Grading the Strength of Guideline Recommendation: USPSTF

1c.22 If other, identify and describe the grading scale with definitions:

1c.23 Grade Assigned to the Recommendation:

1c.24 Rationale for Using this Guideline Over Others: NCQA convened an expert panel of diverse stakeholders to review the guidelines and evidence for this measure. The panel determined the measure was scientifically sound using the full body of evidence and guidelines for this measure concept.

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: High   **1c.26** Quality: High **1c.27** Consistency: High
1c.28 Attach evidence submission form:
1c.29 Attach appendix for supplemental materials:

Was the threshold criterion, *Importance to Measure and Report*, met?
(*1a & 1b must be rated moderate or high and 1c yes*)   Yes☐ No☐
Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.
For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **(evaluation criteria)**
Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See guidance on measure testing.

S.1 Measure Web Page *(In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained)*. Do you have a web page where current detailed specifications for this measure can be obtained? No

S.2 If yes, provide web page URL:

2a. RELIABILITY. Precise Specifications and Reliability Testing: H☐ M☐ L☐ I☐

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
Body mass index (BMI) percentile documentation, counseling for nutrition and counseling for physical activity during the measurement year.

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
The measurement year (12 month calendar year).

2a1.3 Numerator Details *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
ADMINISTRATIVE SPECIFICATION:
BMI percentile: BMI percentile during the measurement year as identified by the following code.
ICD-9 Diagnosis: V85.5

Counseling for Nutrition: Counseling for nutrition during the measurement year as identified by the following codes.
CPT: 97802-97804
ICD-9 Diagnosis: V65.3

HCPCS: G0270, G0271, S9449, S9452, S9470

Counseling for Physical Activity: Counseling for physical activity during the measurement year as identified by the following codes.
ICD-9 Diagnosis: V65.41
HCPCS: S9451

MEDICAL RECORD SPECIFICATION:
BMI Percentile: BMI percentile during the measurement year Documentation must include height, weight and BMI percentile during the measurement year. Either of the following meets criteria for BMI percentile.
• BMI percentile, or
• BMI percentile plotted on age-growth chart
For members who are younger than 16 years of age on the date of service, only evidence of the BMI percentile or BMI percentile plotted on an age-growth chart meets criteria. A BMI value is not acceptable for this age range.
For adolescents 16–17 years on the date of service, documentation of a BMI value expressed as kg/m2 is acceptable.

Counseling for Nutrition: Documentation of counseling for nutrition or referral for nutrition education during the measurement year. Documentation must include a note indicating the date and at least one of the following.
• Discussion of current nutrition behaviors (e.g., eating habits, dieting behaviors)
• Checklist indicating nutrition was addressed
• Counseling or referral for nutrition education
• Member received educational materials on nutrition
• Anticipatory guidance for nutrition

Counseling for Physical Activity: Documentation of counseling for physical activity or referral for physical activity during the measurement year. Documentation must include a note indicating the date and at least one of the following.
• Discussion of current physical activity behaviors (e.g., exercise routine, participation in sports activities, exam for sports participation)
• Checklist indicating physical activity was addressed
• Counseling or referral for physical activity
• Member received educational materials on physical activity
• Anticipatory guidance for physical activity

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)***:**
Children 3-17 years of age with at least one outpatient visit with a primary care physician (PCP) or OB-GYN.

2a1.5 Target Population Category *(Check all the populations for which the measure is specified and tested if any)***:** Children's Health

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)***:**
The measurement year (12 months).

2a1.7 Denominator Details (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)***:**
Ages: 3-17 years as of December 31 of the measurement year.

Event/diagnosis: An outpatient visit with a PCP or an OB/GYN during the measurement year.

Codes to identify outpatient visits:
CPT: 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99381-99387, 99391-99397, 99401-99404, 99411,99412, 99420, 99429, 99455, 99456

ICD-9-CM Diagnosis: V202., V70.0 V70.3, V70.5, V70.6, V70.8. V70.9

UB Revenue: 051x, 0520-0523, 0526-0529, 0982, 0983

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)***:**
Optional Exclusion: Children who have a diagnosis of pregnancy during the measurement year.

2a1.9 Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)***:**
Codes to identify Exclusions
ICD-9-CM Diagnosis codes 630-679, V22, V23, V28

2a1.10 Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)***:**
The total population is stratified by age: 3-11 and 12-17 years of age.

2a1.11 Risk Adjustment Type *(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13)***:** No risk adjustment or risk stratification **2a1.12 If "Other," please describe:**

2a1.13 Statistical Risk Model and Variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)***:**

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL**.** Please supply login/password if needed**:**

2a1.17-18. Type of Score: Rate/proportion

2a1.19 Interpretation of Score *(Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)***:** Better quality = Higher score

2a1.20 Calculation Algorithm/Measure Logic*(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)***:**
Step 1. Determine the eligible population. The eligible population is all members who satisfy all specified criteria, including any age, continuous enrollment, benefit, event, or anchor date enrollment requirement.
Step 2. Search administrative systems and pharmacy data to identify numerator events for all members in the eligible population.
Step 3. If applicable, for members for whom administrative data do not show a positive numerator event, search administrative data for an exclusion to the service/procedure being measured. Note: This step applies only to measures for which optional exclusions are specified and for which the organization has chosen to search for exclusions. The organization is not required to search for optional exclusions.
Step 4. Exclude from the eligible population members from step 3 for whom administrative system data identified an exclusion to the service/procedure being measured.
Step 5. Calculate the rate.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)**:**
Medical Record Specification
A systematic sample drawn from the eligible population. Use the Medical Record Method or the Hybrid Method to identify the eligible population. Refer to the following sections in the General Guidelines.
• The Medical Record Method
• The Hybrid Method
• Sampling Methods

2a1.25 Data Source (*Check all the sources for which the measure is specified and tested*). If other, please describe**:**
 Paper Medical Records

2a1.26 Data Source/Data Collection Instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*)**:** NCQA collects Healthcare Effectiveness Data and Information Set (HEDIS) data directly from Health Management Organizations and Preferred Provider Organizations via a data submission portal – the Interactive Data Submission System (IDSS)

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: URL
http://www.ncqa.org/tabid/370/default.aspx

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested*)**:**   Clinician : Individual, Health Plan, Population : National

2a1.34-35 Care Setting (*Check all the settings for which the measure is specified and tested*)**:**   Ambulatory Care : Clinician Office/Clinic

2a2. Reliability Testing. (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.*)

2a2.1 Data/Sample (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*)**:**
The data exist in HEDIS Performance Measurement data 2010.

2a2.2 Analytic Method (*Describe method of reliability testing & rationale*)**:**
Reliability was estimated by using the beta-binomial model. Beta-binomial is a better fit when estimating the reliability of simple pass/fail rate measures as is the case with most HEDIS® health plan measures. The beta-binomial model assumes the plan score is a binomial random variable conditional on the plan´s true value that comes from the beta distribution. The beta distribution is usually defined by two parameters, alpha and beta. Alpha and beta can be thought of as intermediate calculations to get to the needed variance estimates. The beta distribution can be symmetric, skewed or even U-shaped.

Reliability used here is the ratio of signal to noise. The signal in this case is the proportion of the variability in measured performance that can be explained by real differences in performance. A reliability of zero implies that all the variability in a measure is attributable to measurement error. A reliability of one implies that all the variability is attributable to real differences in performance. The higher the reliability score, the greater is the confidence with which one can distinguish the performance of one plan from another. A reliability score greater than or equal to 0.7 is considered very good.

2a2.3 Testing Results (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*)**:**
1. Commercial plans 2010:

1.a Physical activity: 0.998768
1.b Nutrition: 0.998537
1.c BMI percentile: 0.998481

2. Medicaid 2010:
2.a Physical activity: 0.999597
2.b Nutrition: 0.999559
2.c BMI percentile: 0.999537

3. Medicare 2010:
3.a Physical activity: N/A
3.b Nutrition: N/A
3.c BMI percentile: N/A

2b. VALIDITY. Validity, Testing, <u>including all Threats to Validity</u>:   H☐ M☐ L☐ I☐

2b1.1 Describe how the measure specifications *(measure focus, target population, and exclusions)* **are consistent with the evidence cited in support of the measure focus (***criterion 1c)* **and identify any differences from the evidence:**
The screening portion of the measure is aligned with the USPSTF guideline. However, the counseling portions are not aligned with USPSTF but are aligned with Bright Futures.. The USPSTF found the evidence to be insufficient to recommend for or against screening. NCQA expert and stakeholder advisory groups recommended including counseling based on a weighing of the different guidelines.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

2b2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)***:**
Face validity:
The Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescentsmeasure was tested for face validity with one panels of experts. Measurement Advisory Panels (MAP) and subject matter workgroups provide the clinical and technical knowledge required to develop the measures. The Childhood/Adolescent Obesity Measurement Advisory Panel (OMAP) included 13 experts in childhood/adolescent obesity including representation by consumers, health plans, health care providers and policy makers. NCQA's Committee on Performance Measurement (CPM) oversees the evolution of the measurement set and includes representation by purchasers, consumers, health plans, health care providers and policy makers. This panel is made up of 21 members. The CPM is organized and managed by NCQA, and is responsible for advising NCQA staff on the development and maintenance of performance measures. The CPM also meets with the NCQA Board of Directors to recommend measures for inclusion in HEDIS. CPM members reflect the diversity of constituencies that performance measurement serves; some bring other perspectives and additional expertise in quality management and the science of measurement. Additional HEDIS Expert Panels and the Technical Measurement Advisory Panel (TMAP) provide invaluable assistance by identifying methodological issues and giving feedback on new and existing measures. See Additional Information: Ad.1. Workgroup/Expert Panel Involved in Measure Development for names and affiliation of expert panel.

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)***:**
NCQA identified and refined measure management into a standardized process called the HEDIS measure life cycle.

*Step 1: Topic selection is the process of identifying measures that meet criteria consistent with the overall model for performance measurement. There is a huge universe of potential performance measures for future versions of HEDIS. The first step is identifying measures that meet formal criteria for further development.

NCQA staff identifies areas of interest or gaps in care. Clinical expert panels (MAPs—whose members are authorities on clinical priorities for measurement) participate in this process. Once topics are identified, a literature review is conducted to find supporting documentation on their importance, scientific soundness and feasibility. This information is gathered into a work-up format. Refer to What Makes a Measure "Desirable"? The work-up is vetted by NCQA's MAPs, the TAG, the HEDIS Policy Panel and various other panels.

*Step 2: Development ensures that measures are fully defined and tested before the organization collects them. MAPs participate in this process by helping identify the best measures for assessing health care performance in clinical areas identified in the topic selection phase.

Development includes the following tasks.
1.Ensure funding throughout measure testing
2.Prepare a detailed conceptual and operational work-up that includes a testing proposal
3.Collaborate with health plans to conduct field-tests that assess the feasibility and validity of potential measures

The CPM uses testing results and proposed final specifications to determine if the measure will move forward to Public Comment.

*Step 3: Public Comment is a 30-day period of review that allows interested parties to offer feedback to the CPM about new measures or about changes to existing measures.
NCQA MAPs and technical panels consider all comments and advise NCQA staff on appropriate recommendations brought to the CPM. The CPM reviews all comments before making a final decision about Public Comment measures. New measures and changes to existing measures approved by the CPM will be included in the next HEDIS year and reported as first-year measures.

*Step 4: First-year data collection requires organizations to collect, be audited on and report these measures, but results are not publicly reported in the first year and are not included in NCQA's Quality Compass? or in accreditation scoring.

The first-year distinction guarantees that a measure can be efficiently collected, reported and audited before it is used for public accountability or accreditation. This is not testing—the measure was already tested as part of its development—rather, it ensures that there are no unforeseen problems when the measure is implemented in the real world. NCQA's experience is that the first year of large-scale data collection often reveals unanticipated issues.

After collection, reporting and auditing on a one-year introductory basis, NCQA conducts a detailed evaluation of first-year data. The CPM uses evaluation results to decide whether the measure should become publicly reportable or whether it needs further modifications.

*Step 5: Public reporting is based on the first-year measure evaluation results. If the measure is approved, it will be reported in Quality Compass and may be used for scoring in accreditation.

Step 6: Evaluation is the ongoing review of a measure's performance and recommendations for its modification or retirement. Every measure is reevaluated at least every three years. NCQA staff continually monitors the performance of publicly reported measures. Statistical analysis, audit result review and user comments contribute to measure evaluation. Information derived from analyzing the performance of existing measures is used to improve development of the next generation of measures.

Each year, a third of the measurement set is researched for changes in clinical guidelines or health care delivery systems, and the results from previous years are analyzed. Measure work-ups are updated with new information gathered from the literature review, and the appropriate MAPs review the work-ups and the previous year's data. If necessary, the measure specification may be updated or the measure may be recommended for retirement. The CPM reviews recommendations from the evaluation process and approves or rejects the recommendation. If approved, the change is included in the next year's HEDIS Volume 2.

What makes a measure "Desirable"?

Whether considering the value of a new measure or the continuing worth of an existing one, we must define what makes a measure useful. HEDIS measures encourage improvement. The defining question for all performance measurement— "Where can measurement make a difference?"—can be answered only after considering many factors. NCQA has established three areas of desirable characteristics for HEDIS measures, discussed below.

1. Relevance: Measures should address features that apply to purchasers or consumers, or which will stimulate internal efforts toward quality improvement. More specifically, relevance includes the following attributes.

Meaningful: What is the significance of the measure to the different groups concerned with health care? Is the measure easily interpreted? Are the results meaningful to target audiences?
Measures should be meaningful to at least one HEDIS audience (e.g., individual consumers, purchasers or health care systems). Decision makers should be able to understand a measure's clinical and economic significance.

Important to health: What is the prevalence and overall impact of the condition in the U.S. population? What significant health care aspects will the measure address?
We should consider the type of measure (e.g., outcome or process), the prevalence of medical condition addressed by the measure and the seriousness of affected health outcomes.

Financially important: What financial implications result from actions evaluated by the measure? Does the measure relate to activities with high financial impact?
Measures should relate to activities that have high financial impact.

Cost effective: What is the cost benefit of implementing the change in the health care system? Does the measure encourage the use of cost-effective activities or discourage the use of activities that have low cost-effectiveness? Measures should encourage the use of cost-effective activities or discourage the use of activities that have low cost-effectiveness.

Strategically important: What are the policy implications? Does the measure encourage activities that use resources efficiently? Measures should encourage activities that use resources most efficiently to maximize member health.

Controllable: What impact can the organization have on the condition or disease? What impact can the organization have on the measure? Health care systems should be able to improve their performance. For outcome measures, at least one process should be controlled and have an important effect on outcome. For process measures, there should be a strong link between the process and desired outcome.

Variation across systems: Will there be variation across systems? There should be the potential for wide variation across systems.

Potential for improvement: Will organizations be able to improve performance? There should be substantial room for performance improvement.

2. Scientific soundness: Perhaps in no other industry is scientific soundness as important as in health care. Scientific soundness must be a core value of our health care system—a system that has extended and improved the lives of countless individuals.

Clinical evidence: Is there strong evidence to support the measure? Are there published guidelines for the condition? Do the guidelines discuss aspects of the measure? Does evidence document a link between clinical processes and outcomes addressed by the measure? There should be evidence documenting a link between clinical processes and outcomes.

Reproducible: Are results consistent? Measures should produce the same results when repeated in the same population and setting.

Valid: Does the measure make sense? Measures should make sense logically and clinically, and should correlate well with other measures of the same aspects of care.

Accurate: How well does the measure evaluate what is happening? Measures should precisely evaluate what is actually happening.

Risk adjustment: Is it appropriate to stratify the measure by age or another variable? Measure variables should not differ appreciably beyond the health care system's control, or variables should be known and measurable. Risk stratification or a validated model for calculating an adjusted result can be used for measures with confounding variables.

Comparability of data sources: How do different systems affect accuracy, reproducibility and validity? Accuracy, reproducibility and validity should not be affected if different systems use different data sources for a measure.

3. Feasibility:
The goal is not only to include feasible measures, but also to catalyze a process whereby relevant measures can be made feasible.

Precise specifications: Are there clear specifications for data sources and methods for data collection and reporting? Measures should have clear specifications for data sources and methods for data collection and reporting.

Reasonable cost: Does the measure impose a burden on health care systems? Measures should not impose an inappropriate burden on health care systems.

Confidentiality: Does data collection meet accepted standards of member confidentiality?
Data collection should not violate accepted standards of member confidentiality. Logistical feasibility
Are the required data available?

Auditability: Is the measure susceptible to exploitation or "gaming" that would be undetectable in an audit? Measures should not be susceptible to manipulation that would be undetectable in an audit.

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:
Step 1: The Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents measure was developed to address a gap in care concerning the assessment of children and adolescents who are overweight or obese.. NCQA's Performance Measurement Department and the Childhood/Adolescent Obesity MAP worked together to determine the most appropriate way to assess whether a child/adolescent was overweight or obese as well as the level of counseling on nutrition and physical activity they had incurred in a given time period.

Step 2: The measure was written, field-tested, and presented to the CPM in 20048. The CPM recommended to send the measure to public comment .

Step 3: The measure was released for Public Comment in spring 20048. We received and responded to comments on this measure. The CPM recommended moving this measure to first year data collection with a vote of 14 in favor and none opposed.

Step 4: The Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents measure was introduced in HEDIS 2009. Organizations reported the measures in the first year and the results were analyzed for public reporting in the following year. The CPM recommended moving this measure public reporting with a vote of 11 in favor and none opposed.

Step 5: The Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents measure will be reevaluated in 2012.

POTENTIAL THREATS TO VALIDITY. (*All potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
N/A

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference)*:
N/A

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*
N/A

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)***:**
No risk adjustment was deemed necessary.

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables)***:**
N/A

2b4.3 Testing Results *(Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata)***:**
N/A

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: The measure assesses BMI, counseling for nutrition, and counseling for physical activity in a general population of children and adolescents; risk adjustment is not indicated. The measure is stratified by gender, age and product line.

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.*)

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)***:**
Data analysis demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful differences in performance.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)***:**
Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance.

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
 Commercial
BMI Percentile - Total
Data Element; 2009; 2008; 2007
N;171; 157; .
MEAN; 35.4; 29.7; .
STDEV; 24.6; 22.3; .
STDERR; 1.88; 1.78;.
MIN; 0; 0; .
MAX; 95.6; 98.5; .
P10; 0.44; 0.2; .
P25; 18.2; 14.6; .
P50; 33.3; 25.8; .
P75; 53; 42.8; .
P90; 68.4; 63.3; .

Nutrition Counseling
Data Element;2009; 2008; 2007
N; 171; 159; .
MEAN; 41; 39.7; .
STDEV; 23.4; 22.7; .
STDERR; 1.79; 1.8; .

MIN; 0.06; 0; .
MAX; 100; 87.1; .
P10; 0.46; 0.25; .
P25; 29.9; 26.8; .
P50; 45.4; 44.3; .
P75;55.5; 54.7; .
P90; 67.6; 67.6; .

Physical Activity Counseling
Data Element; 2009; 2008; .
N; 171; 159; .
MEAN; 36.5; 34.8; .
STDEV; 22; 21.4; .
STDERR; 1.68; 1.7; .
MIN; 0; 0; .
MAX; 100; 76.4; .
P10; 0.01; 0.01; .
P25; 25.1; 18.8; .
P50; 38.2; 37.2; .
P75; 51.2; 50.1; .
P90; 64.4; 61.3; .

Medicaid
BMI Percentile - Total
Data Element; 2009; 2008; .
N; 126; 88; .
MEAN; 30.3; 21.3; .
STDEV; 23.1; 19.5; .
STDERR; 2.05; 2.08; .
MIN; 0.01; 0; .
MAX; 95.5; 99.3; .
P10; 0.34; 0.1; .
P25; 13; 2.58; .
P50; 29.3; 16.9; .
P75; 45.2; 34.1; .
P90; 63; 47.4; .

Nutrition Counseling
Data Element; 2009; 2008; .
N; 126; 88; .
MEAN; 41.9; 35.5; .
STDEV; 22.6; 24.1; .
STDERR; 2.01; 2.57; .
MIN; 0; 0.03; .
MAX; 83.8; 96.6; .
P10; 0.4; 0.29; .
P25; 34.3; 7.68; .
P50; 46.2; 40.5; .
P75; 57.7; 53; .
P90; 67.9; 64; .

Physical Activity Counseling
Data Element; 2009; 2008; .

N; 126; 88; .
MEAN; 32.5; 26.5; .
STDEV; 19; 19.5; .
STDERR; 1.69; 2.08; .
MIN; 0; 0; .
MAX; 74.2; 79.3; .
P10; 0.01; 0.01; .
P25 ; 22.9; 0.11; .
P50; 35.3; 29.8; .
P75; 45.5; 39.7; .
P90; 56.7; 51.6; .

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample (*Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*)**:**
In the summer of 2007, NCQA conducted a field test to assess the feasibility of a BMI assessment and counseling measure for children and adolescents who were overweight or obese. Three health plans participated in the field test and provided de-identified patient-level data and medical record abstracts to NCQA under the terms of a formal agreement. The enrollments of these three health plans ranged from 616,000 to 5,500,000 members. Participating plans were located in several geographic regions of the country.

Administrative Data Collection
1.   For the data compiled for this project, information was abstracted based on patient records from calendar years 2005 and 2006 only.
2.   Demographic Enrollment Data: was used to verify member eligibility based on age as of 12/31/2006.
3.   Claims/Encounter Data: was used to determine number of member visits, existing diagnoses, types of visits, and claims for BMI assessment.
4.   The full eligible population, as identified via administrative data, was used to determine the sample for medical record review.

Medical Record Data Collection
Manual chart review was required to obtain the appropriate data elements for this study from a sample of the eligible population; plans were required to pull and report on 150 charts. Over-sampling to ensure a total of 150 charts reviewed may have been necessary. Plans pulled medical records selected from the commercial and Medicaid populations used for the administrative portion of the field test. The samples were selected either randomly or by using the HEDIS systematic sampling methodology. Once the sample was identified, the following logic was used to select the medical record for review for each member:
1.   Plans reviewed the medical record located at the physician office where the member was most frequently seen during 2005 and 2006.
2.   If there was a tie with two or more physicians with the same number of visits, the record at the physician office for the most recent visit was used.
3.   If there was no documentation of BMI percentile in the medical record pulled, plans may have used another medical record for that member.

2b6.2 Analytic Method (*Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure*)**:**
The purpose of field testing is to determine:
- The validity of the administrative algorithm to identify the target population (denominator) based upon the measurement period, continuous enrollment /exclusionary criteria
- The validity of administrative data to accurately capture medical processes delivered (i.e. tests) or diagnoses by comparing administrative results with data from a sample of medical records
- The feasibility of the measure specifications to identify the quality problem and to discriminate performance between health plans for the purposes of HEDIS public reporting.

- The reliability and feasibility of the measure specifications so that all health plans can capture the required data elements and can conduct programming

Based upon the field test results, NCQA made necessary revisions to the measure specifications so that it meets the Desirable Attributes of a HEDIS measure.

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted)*:
Based on this field test, it was apparent that there was significant room for improvement in the documentation of BMI percentile, and counseling for nutrition and physical activity. However, the potential for improvement was much higher for documentation of BMI percentile. Approximately 22% of children had BMI percentile documented in the medical record during 2005 or 2006. When expanding the measure to include documentation of counseling for nutrition and physical activity, the field test data indicated that 63% of members had documentation of counseling for nutrition and 39% had documentation of counseling for physical activity.

2c. Disparities in Care: H☐ M☐ L☐ I☐ NA☐ *(If applicable, the measure specifications allow identification of disparities.)*

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: The measure is not stratified to detect disparities.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
NCQA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, employer) should capture and report this data. While "requiring" reporting of the data could push the field forward, it has been our position that doing so would create substantial burden with inability to use the data because of its inconsistency. At the present time, we agree with the IOM report that disparities are best considered by the use of zip code analysis which has limited applicability in most reporting situations. At the health plan level, for HEDIS health plan data collection, NCQA does have extensive data related to our use of stratification by insurance status (Medicare, Medicaid and private-commercial) and would strongly recommend this process where the data base supporting the measurement includes this information. However, we believe that the measure specifications should NOT require this since the measure is still useful where the data needed to determine disparities cannot be ascertained from the data available.

2.1-2.3 Supplemental Testing Methodology Information:

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met?
(***Reliability and Validity must be rated moderate or high***) Yes☐ No☐
Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. **(evaluation criteria)**

C.1 Intended Actual/Planned Use *(Check all the planned uses for which the measure is intended)*: Public Reporting, Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

3.1 Current Use *(Check all that apply; for any that are checked, provide the specific program information in the following questions)*: Public Reporting, Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I☐

(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large *(If used in a public reporting program, provide name of program(s), locations, Web page URL(s)).* If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: **[For _Maintenance_ –** *If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.***]**

This measure is used in public reporting for plans only through Healthcare Effectiveness Data and Information Set (HEDIS) and is reported through venues such as the annual State of Healthcare Quality report, Quality Compass, America's Best Health Plans.

3a.2.Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results**:** HEDIS measures adhere to the desirable attributes of scientific acceptability, feasibility and usability. The measures provide performance rates that are audited for consistency and accuracy.

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s)**:** The measure is part of federal reporting initiatives including CHIPRA Core Set, Meaningful Use

3b. Usefulness for Quality Improvement: H☐ M☐ L☐ I☐
(*The measure is meaningful, understandable and useful for quality improvement.*)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[For _Maintenance_ – *If not used for QI, indicate the reasons and describe progress toward using performance results for improvement***]**.
This measure is in the Healthcare Effectiveness Data and Information Set (HEDIS) and is used in NCQA's Health Plan Accreditation program.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
Upon review of public comment results, the Committee on Performance Measurement approved the NCQA staff recommendation to add the measure to HEDIS. After reviewing first-year analysis results, the CPM approved the staff recommendation to publicly report the measure. The measure was deemed usable and feasible.

Overall, to what extent was the criterion, *Usability*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. **(evaluation criteria)**

4a. Data Generated as a Byproduct of Care Processes: H☐ M☐ L☐ I☐

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are**:**
Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

4b. Electronic Sources: H☐ M☐ L☐ I☐

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields)***:** ALL data elements are in a combination of electronic sources

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H☐ M☐ L☐ I☐

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:

NCQA recognizes that, despite the clear specifications defined for HEDIS measures, data collection and calculation methods may vary, and other errors may taint the results, diminishing the usefulness of HEDIS data for managed care organization (MCO) comparison. In order for HEDIS to reach its full potential, NCQA conducts an independent audit of all HEDIS collection and reporting processes, as well as an audit of the data which are manipulated by those processes, in order to verify that HEDIS specifications are met. NCQA has developed a precise, standardized methodology for verifying the integrity of HEDIS collection and calculation processes through a two-part program consisting of an overall information systems capabilities assessment followed by an evaluation of the MCO´s ability to comply with HEDIS specifications (. NCQA-certified auditors using standard audit methodologies will help enable purchasers to make more reliable "apples-to-apples" comparisons between health plans.
The HEDIS Compliance Audit addresses the following functions:
1) information practices and control procedures
2) sampling methods and procedures
3) data integrity
4) compliance with HEDIS specifications
5) analytic file production
6) reporting and documentation

4d. Data Collection Strategy/Implementation: H☐ M☐ L☐ I☐

A.2 Please check if either of the following apply (*regarding proprietary measures*): Proprietary measure
4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues (*e.g., fees for use of proprietary measures*)**:**

NCQA´s multi-stakeholder advisory panels examined an analysis of the measure after its first year of reporting. The measure was deemed appropriate for public reporting. NCQA has processes to ensure coding and specifications are clear and updated when needed.

Overall, to what extent was the criterion, *Feasibility*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes☐ No☐
Rationale:

If the Committee votes No, STOP.
If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

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5. COMPARISON TO RELATED AND COMPETING MEASURES

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

5.1 If there are related measures *(either same measure focus or target population)* **or competing measures** *(both the same measure focus and same target population)***, list the NQF # and title of all related and/or competing measures:**

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):
Are the measure specifications completely harmonized?

5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:

5b. Competing Measure(s)

5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s): Describe why this measure is superior to competing measures *(e.g., a more valid or efficient way to measure quality)***; OR provide a rationale for the additive value of endorsing an additional measure.** *(Provide analyses when possible)***:**

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005

Co.2 Point of Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-

Co.3 Measure Developer if different from Measure Steward: National Committee for Quality Assurance, 1100 13th Street NW, Washington, District Of Columbia, 20005

Co.4 Point of Contact: Dawn, Alayon, MPH, CPH, alayon@ncqa.org, 202-955-3533-

Co.5 Submitter: Dawn, Alayon, MPH, CPH, Senior Health Care Analyst, alayon@ncqa.org, 202-955-3533-, National Committee for Quality Assurance

Co.6 Additional organizations that sponsored/participated in measure development:

Co.7 Public Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-, National Committee for Quality Assurance

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.
The NCQA Childhood/Adolescent Obesity MAP advised NCQA during measure development. They evaluated the way staff specified measures, assessed the content validity of measures, and reviewed field test results. As you can see from the list, the MAP consisted of a balanced group of experts, including representatives from health plans and specialty societies. Note that, in addition to the MAP, we also vetted these measures with a host of other stakeholders, as is our process. Thus, our measures are the result of consensus from a broad and diverse group of stakeholders, in addition to the MAP.

Joe Anarella, MPH, Assistant Director, Bureau of Quality Management and Outcomes Research New York State Department of Health
Keith Bachman, MD, Clinical Lead--CMI Weight Management Initiative, Kaiser Permanente Care Management Institute, Oakland
Terry Bazzarre, PhD, Senior Program Officer, The Robert Wood Johnson Foundation
Chris Bolling, MD (Co-Chair)
Medical Director, Medical Weight Loss Program, Cincinnati Children's Hospital Medical Center
William Dietz, MD, PhD
Director, Division of Nutrition and Physical Activity, CDC
Molly Gee, MEd, LD, RD, Project Manager, Look Ahead Diabetes Study, Baylor College of Medicine; Chair, Obesity Steering Committee, American Dietetic Association
Sandra Hassink, MD, FAAP, Director, Weight Management Program Department of Pediatrics
Division of General Pediatrics

Alfred I. duPont Hospital for Children; Member of Board of Directors, American Academy of Pediatrics

Francine Kaufman, MD, Professor of Pediatrics, Keck School of Medicine, University of Southern California; Head of the Center for Diabetes, Endocrinology and Metabolism, Children's Hospital Los Angeles

Jonathan Klein, MD, MPH (Co-Chair) Associate Professor of Pediatrics and of Community and Preventive Medicine, University of Rochester; Director, American Academy of Pediatrics, Julius B. Richmond Center of Excellence

Nancy F. Krebs, MD, Professor of Pediatrics University of Colorado School of Medicine, Medical Director, Department of Coordinated Nutrition Services at the Children's Hospital

Catherine MacLean, MD, PhD Medical Director, Programs in Clinical Excellence, Health Solutions, Wellpoint, Inc.

Joe Thompson, MD, MPH Director, Arkansas Center for Health Improvement

Reginald L. Washington, MD, FAAP, FACC, FAHA Professor of Pediatric Cardiology University of Colorado Medical Center Committee on Performance Measurement (CPM)

Peter Bach, MD, Memorial Sloan Kettering Cancer Center

Bruce Bagley, MD, American Academy of Family Physicians

Andrew Baskin, MD, Aetna

A. John Blair lll, MD, Taconic IPA, Inc

Patrick Conway, MD, MSC, Center for Medicare & Medicaid Services

Jonathan D. Darer, MD, Geisinger Health System

Helen Darling, National Business Group on Health

Foster Gesten, MD, NYSDOH Office of Managed Care

Marge Ginsburg, Center for Healthcare Decisions

Christine S. Hunter, MD, US Office of Personnel Management (OPM)

George J. Isham, MD, MS, HealthPartners

Jeffrey Kelman, MMSc, MD, Centers for Medicare & Medicaid Services (CMS)

Lisa Latts, MD, MSPH, MBA, Well Point, Inc.

Arthur Levin, MPH (Co-Chair), Center for Medical Consumers

Philip Madvig, MD, The Permanente Medical Group

Susan Reinhard, RN, PhD, AARP

Bernard M. Rosof, MD, MACP, Huntington Hospital

Eric C. Schneider, MD, MSc (Co-Chair), RAND Corporation

Kevin Weiss, MD, FACP, American Board of Medical Specialties

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:	

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2009
Ad.4 Month and Year of most recent revision: 2010
Ad.5 What is your frequency for review/update of this measure? Approximately every three years; sooner if the clinical guidelines change significantly
Ad.6 When is the next scheduled review/update for this measure?

Ad.7 Copyright statement: © by the National Committee for Quality Assurance
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Washington, DC 20005

Ad.8 Disclaimers:

Ad.9 Additional Information/Comments:

Date of Submission (*MM/DD/YY*)**:** 07/12/2011