NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1395 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Chlamydia Screening and Follow Up
De.2 **Brief description of measure:** The percentage of female adolescents who turned 18 years old during the measurement year and who had a chlamydia screening and proper follow-up visit.
1.1-2 **Type of Measure:** Process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** This measure appears in the composite Comprehensive Well Care by Age 18 Years
De.4 **National Priority Partners Priority Area:** Care coordination, Population health De.5 **IOM Quality Domain**: Effectiveness, Timeliness De.6 **Consumer Care Need:** Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	A Y☐ N☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and	B

update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement Accountability	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Leading cause of morbidity/mortality, High resource use, Severity of illness, Patient/societal consequences of poor quality **1a.2** **1a.3 Summary of Evidence of High Impact:** Chlamydia trachomatis is the most common sexually transmitted bacterial infection in the US (USPSTF, 2006). Among women with chlamydial infection, 20-40 percent will experience pelvic inflammatory disease (Mangione-Smith, 1999), 50-75 percent will experience tubal factor infertility if untreated (Mangione-Smith, 1999; Sellors, 1998), and 65 percent will experience an ectopic pregnancy if untreated. It is the leading cause of preventable infertility and, among other adverse pregnancy related problems, can cause preterm birth, miscarriages, infant mortality, and neonatal chlamydial infections (USPSTF, 2007). Over 900,000 chlamydial infections were reported to the Centers for Disease Control and Prevention (CDC) from 50 states and the District of Columbia in 2004. Since many cases are not reported or even diagnosed, it is estimated that there are actually 2.8 million new cases of chlamydia each year (Weinstock, 2004). From 1987 through 2004, the reported rate of chlamydial infection in women increased from 78.5 cases to 485.0 cases per 100,000 people. A portion of the increase in prevalence is attributed to continued expansion of chlamydia screening programs (CDC, 2005). Cost-effectiveness data of Chlamydia screening found that routinely screening women younger than age 25	**1a** C☐ P☐ M☐ N☐

saves $45 for every woman screened (Mangione-Smith, 1999). The CDC estimated that every dollar spent on Chlamydia testing and treatment saves $12 in complications arising from untreated Chlamydia (CDC, 2001). Studies suggest the most cost- effective screening interval is yearly screening for women aged 15-29 followed by screening every 6 months for those with a history of infection (Hu, 2004).

1a.4 Citations for Evidence of High Impact: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2004 Supplement, Chlamydia Prevalence Monitoring Project. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, December 2005.

Centers for Disease Control and Prevention. Chlamydia in the United States. April 2001b.

Hu, Delphine, MD, et al. Screening for Chlamydia trachomatis in Women 15 to 29 Years of Age: A Cost-Effectiveness Analysis. Annals of Internal Medicine. October 5, 2004. Volume 141: 501-513.

Humphreys JT, Henneberry JF, Rickard RS, Beebe JL. Cost-benefit analysis of selective screening criteria for Chlamydia trachomatis infection in women attending Colorado family planning clinics. Sex Transm Dis 1992, 19:47-53.

Mangione-Smith R, O'Leary J, McGlynn EA. Health and cost-benefits of chlamydia screening in young women. Sexually Transmitted Diseases: Vol 26(6) July 1999 pg 302-316.

Sellors JW, Mahony JB, Cherneski MA, Rath DJ. Tubal factor infertility: an association with prior chlamydia infection and asymptomatic salpingitis. Fertility and Sterility 1998;49:451-457.

U.S. Preventive Services Task Force. Screening for chlamydial infection: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2007 Jul 17;147(2):128-34

Weinstock H, Berman S, Cates W. Sexually Transmitted Diseases Among American Youth: Incidence and Prevalence Estimates, 2000. Perspectives on Sexual and Reproductive Health 2004;36(1):6-10.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: Most individuals infected with chlamydia are asymptomatic. Screening is necessary to detect cases and to reduce the risk of complications. This measure encourages secondary prevention of chlamydia.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Despite the widespread availability of non-invasive testing methods for chlamydia and single dose therapy using azithromycin, chlamydia screening rates have, overall, remained low (Fairley, 2005). This rate may reflect barriers to testing that relate to both patients and health care providers. For instance, adolescents may be reluctant to seek care for their sexual health because of embarrassment or concerns about their confidentiality, while health care providers may have limited awareness of chlamydia as an issue or lack the time, knowledge and skills to manage and discuss sexual health issues (Verhoeven, 2005; Poljski, 2004).

1b.3 Citations for data on performance gap:
Fairley CK, Hocking , Gunn J, Chen MY: No barriers to chlamydia testing in sexually active young women. Med J Aust 2005 , 183:548-9.

Verhoeven V, Avonts D, Vermeire E, Debaene L, Van Royen P: A short educational intervention on communication skills improves the quality of screening for chlamydia in GPs in Belgium: a cluster randomised controlled trial. Patient Education and Counselling 2005 , 57:101-5.

Poljski C, Atkin L, Williams H: Review of sexual health clinical services in Victoria. Family Planning Victoria, Melbourne 2004.

Samitha Ginige, Christopher K Fairley, Jane S Hocking, Francis J Bowden and Marcus Y Chen. Interventions for increasing chlamydia screening in primary care: a review. BMC Public Health 2007, 7:95

1b
C☐
P☐
M☐
N☐

1b.4 Summary of Data on disparities by population group:
In general, females have higher rates of chlamydia, though they also utilize screening services more often, which may cause misleading statistics (NRCIM, 2009). In 2003, the highest age-specific rates of reported Chlamydia in women were among 15-19 year olds and 20 to 24 year olds. For females ages 10-14, the age-specific rate was 132 per 100,000 (CDC, 2003). Approximately five to 14 percent of16-20 year olds and three to 12 percent of 20-24 year old women who were routinely screened are infected with Chlamydia (Walsh, 2002).

African American adolescents have the highest rate of chlamydia than any other racial or ethnic group. African American female adolescents have the highest percentage compared to African American males of the same age group (NRCIM, 2009).

1b.5 Citations for data on Disparities:
Centers for Disease Control and Prevention. Trends in Reportable Sexually Transmitted Diseases in the United States, 2003 - National Data on Chlamydia, Gonorrhea and Syphilis. STD Surveillance 2003b.

National Research Council and Institute of Medicine. Adolescent Health Services: Missing Opportunities. Committee on Adolescent Health Care Services and Models of Care for Treatment, Prevention, and Healthy Development, R.S. Lawrence, J. Appleton Gootman, and L.J. Sim, Editors. Board on Children, Youth, and Families. Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. 2009.

Walsh C, Irwin K. Combating the silent chlamydia epidemic. Contemp Ob Gyn 2002;Apr:90-8.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** Early detection and intervention can prevent the many complications of chlamydia, including pelvic inflammatory disease and infertility.

1c.2-3. Type of Evidence: Evidence-based guideline, Expert opinion

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
The U.S. Preventive Services Task Force (USPSTF) concluded there is good evidence that screening for chlamydial infection in non-pregnant women who are at increased risk can reduce the incidence of pelvic inflammatory disease (PID). The USPSTF concluded that the benefits of screening women at increased risk are substantial.
While the USPSTF found no studies evaluating the effectiveness of screening for chlamydial infection in pregnant women who are at increased risk, they did find the following:
1. Screening identifies infection in asymptomatic pregnant women.
2. There is a relatively high prevalence of infection among pregnant women who are at increased risk.
3. There is fair evidence of improved pregnancy and birth outcomes for women who are treated for chlamydial infection.

Thus, the USPSTF concluded that the benefits of screening pregnant women who are at increased risk are substantial.

The USPSTF identified no studies documenting the benefits of screening women, including pregnant women, who are not at increased risk for chlamydial infection. While recognizing the potential benefit to women identified through screening, the USPSTF concluded the overall benefit of screening would be small, given the low prevalence of infection among women not at increased risk.

Other guideline-setting bodies generally align with the USPSTF.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom*)**:**
Good

1c
C ☐
P ☐
M ☐
N ☐

1c.6 Method for rating evidence: USPSTF based

1c.7 Summary of Controversy/Contradictory Evidence: Other guideline-setting bodies generally align with the USPSTF, though a few recommend screening for slightly different age ranges. For example, ICSI recommends screening up to age 25 years instead of 24 years.

1c.8 Citations for Evidence (*other than guidelines*): U.S. Preventive Services Task Force. Screening for chlamydial infection: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2007 Jul 17;147(2):128-34

Center for Disease Control and Prevention (CDC). Sexually Transmitted Diseases Treatment Guidelines, 2006. MMWR August 4, 2006 / 55(RR11);1-94

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number*):
The U.S. Preventive Services Task Force (2007)
The USPSTF recommends screening for chlamydial infection for all sexually active non-pregnant young women aged 24 and younger and for older non-pregnant women who are at increased risk.
Grade: A Recommendation.

The USPSTF recommends screening for chlamydial infection for all pregnant women aged 24 and younger and for older pregnant women who are at increased risk.
Grade: B Recommendation.

The USPSTF recommends against routinely providing screening for chlamydial infection for women aged 25 and older, whether or not they are pregnant, if they are not at increased risk.
Grade: C Recommendation.

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydial infection for men.
Grade: I Statement.

Institute for Clinical System Improvement (2009)
ICSI recommends routinely screening sexually active women age 25 years and younger.
Grade: Level 1 Evidence (Providers Must Assess)

Centers for Disease Control and Prevention (2010)
Chlamydia Screening Recommendations
During routine health care contacts, assess for infection with chlamydia women who:
are sexually active and 24 years of age or younger,
have new or multiple sexual partners, regardless of age,
have a history of sexually transmitted disease within the last year, regardless of age,
have partners who have had multiple partners within the last year, regardless of age.

Test all pregnant women at least once, regardless of age, including those who plan to terminate the pregnancy.

Re-screen all women who tested positive, especially adolescents, 3-4 months after treatment due to the high incidence of re-infection.

Note: The above recommendations are general guidelines based on national statistics. The prevalence of chlamydia in the immediate geographical area may warrant more or less aggressive screening activities and resources.

American Congress of Obstetricians and Gynecologists (2006)
ACOG recommends routinely screening all sexually active women age 25 years and younger as well as asymptomatic women at high risk for infection.
Grade: Expert Consensus

American Academy of Pediatrics (2006)
AAP recommends at least annual screening of sexually active adolescent females.
Grade: Expert Consensus

American Academy of Family Practitioners (2007)
Aligns with USPSTF 2007

Bright Futures (2008)
Bright Futures states that providers should screen sexually active youth age 11-21 years.
Grade: Expert Consensus

1c.10 **Clinical Practice Guideline Citation:** American Academy of Family Physicians (AAFP). Summary of recommendations for clinical preventive services. Revision 6.4. Leawood (KS): American Academy of Family Physicians (AAFP); 2007 Aug.

American Academy of Pediatrics. Chlamydia trachomatis. Red Book 2006 Report of the Committee on Infectious Diseases. Pickering LK, eds et al. 27th ed. Elk Grove Village, IL. American Academy of Pediatrics; 2006: 252-257

American College of Obstetricians and Gynecologists (ACOG). Recommendations from Primary and preventive care: periodic assessments. ACOG Committee Opinion No. 357 (2006)

Center for Disease Control and Prevention (CDC). June 2010. Chlamydia Screening and CDC Treatment Recommendations. http://www.health.state.mn.us/divs/idepc/diseases/chlamydia/screentreat.html

Institute for Clinical Systems Improvement (ICSI). Preventive services for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2008 Oct. 71 p

U.S. Preventive Services Task Force. Screening for chlamydial infection: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2007 Jul 17;147(2):128-34

1c.11 **National Guideline Clearinghouse or other URL:** Preventive services for children and adolescents: http://www.guideline.gov/summary/summary.aspx?doc_id=13314&nbr=006758&string=Chlamydia+AND+Screening

1c.12 **Rating of strength of recommendation (***also provide narrative description of the rating and by whom***):**
Good

1c.13 **Method for rating strength of recommendation** (*If different from* USPSTF system, *also describe rating and how it relates to USPSTF)*:
USPSTF based

1c.14 **Rationale for using this guideline over others:**
There is broad guideline support for this measure.

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. 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)	Eval Rating

2a. MEASURE SPECIFICATIONS

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*):
Children who had documentation in the medical record of chlamydia screening By Age 18 Years

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator*):
2 years

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*):
"Documentation must include a note indicating the date and the following.
• A chlamydia test result
• For abnormal or indeterminate results, evidence of confirmatory testing, referral or treatment"

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*):
"Children who turned 18 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months.
Additional denominator criterion: Only include women with evidence of sexual activity. Evidence of sexual activity can include the following:
• Documentation of sexual activity
• Prescription for contraception
• Treatment or Screening for sexually transmitted disease
• Pregnancy
• Pelvic examination

2a.5 Target population gender: Female
2a.6 Target population age range: 13 years-18 years

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator*):
1 year

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*):
See above; chart review only

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population*): Exclude males

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*):
See above; chart review only

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions*):
None

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method*):
NA

2a-specs
C☐
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N☐

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
Step 1: Determine the denominator
Children who turned the requisite age in the measurement year, AND
Who had a visit within the past 12 months of the child´s birthday
Step 2: Determine the numerator
Children who had documentation in the medical record of the screening or service during the measurement year or the year previous to the measurement year.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)*:
Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance

2a.23 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)*:
For this physician-level measure, we anticipate the entire population will be used in the denominator. If a sample is used, a random sample is ideal. NCQA's work has indicated that a sample size of 30-50 patients would be necessary for a typical practice size of 2000 patients.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Paper medical record/flow-sheet, Electronic clinical data, Electronic Health/Medical Record

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Medical Record

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Clinicians: Individual, Clinicians: Group, Population: national, Population: regional/network

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care: Office, Ambulatory Care: Clinic, Ambulatory Care: Hospital Outpatient

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)
Clinicians: Nurses, Clinicians: PA/NP/Advanced Practice Nurse, Clinicians: Physicians (MD/DO)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure)

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*:
We did not conduct reliability testing for this measure.

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
We did not conduct reliability testing for this measure.

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2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)*: NCQA received data from 19 physician practices

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P☐

who submitted 10 records per measure (total 190 records per measure) 2c.2 **Analytic Method** *(type of validity & rationale, method for testing)*: NCQA tested the measure for face validity using a panel of stakeholders with specific expertise in measurement and child health care. This panel included representatives from key stakeholder groups, including pediatricians, family physicians, health plans, state Medicaid agencies and researchers. Experts reviewed the results of the field test and assessed whether the results were consistent with expectations, whether the measure represented quality care, and whether we were measuring the most important aspect of care in this area. This measure was deemed valid by the expert panel. In addition, this measure does not utilize administrative data sources; data recorded in the chart is considered the gold standard. 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: Elig Population: 52 Screening documented: 61.5 Results documented: 57.7 Results and Proper Follow Up Documented 48.0	M☐ N☐
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** NA 2d.2 **Citations for Evidence:** NA 2d.3 **Data/sample** *(description of data/sample and size)*: NA 2d.4 **Analytic Method** *(type analysis & rationale)*: NA 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*: NA	2d C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: NA 2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*: NA 2e.3 **Testing Results** *(risk model performance metrics)*: NA 2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:** The measure assesses prevention and wellness in the general population; risk adjustment is not indicated.	2e C☐ P☐ M☐ N☐ NA☐
2f. Identification of Meaningful Differences in Performance 2f.1 **Data/sample from Testing or Current Use** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) 2f.2 **Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance 2f.3 **Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	2f C☐ P☐ M☐ N☐

Upon reviewing the measure, the expert panel suggested adding an exclusion for children already diagnosed or in treatment. Note, this exclusion is not evidence dependent but rather a specification issue.	
2g. Comparability of Multiple Data Sources/Methods 2g.1 **Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) 2g.2 **Analytic Method** *(type of analysis & rationale)*: This measure is chart review only; no other sources were identified by the expert panel; this measure does not utilize administrative data 2g.3 **Testing Results** *(e.g., correlation statistics, comparison of rankings)*: NA	**2g** C☐ P☐ M☐ N☐ NA☐
2h. Disparities in Care 2h.1 **If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: The measure is not stratified to detect disparities. 2h.2 **If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:** NA	**2h** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐ M☐ N☐
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information 3a.1 **Current Use:** Not in use but testing completed 3a.2 **Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): This measure is not currently publicly reported. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. 3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years*): This measure is not currently used in QI. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. NCQA anticipates that after we release these measures, they will become widely used, as all our measures do. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)*: NA 3a.5 **Methods** *(e.g., focus group, survey, QI project)*: NCQA vetted the measures with its expert panel. In addition, throughout the development process, NCQA	**3a** C☐ P☐ M☐ N☐

vetted the measure concepts and specifications with other stakeholder groups, including the National Association of State Medicaid Directors, NCQA's Health Plan Advisory Council, NCQA's Committee on Performance Measurement, and the American Academy of Pediatrician's Quality Improvement Innovation Network. After field testing, NCQA also conducted a debrief call with field test participants. In the form of a group interview, NCQA systematically sought feedback on whether the measures were understandable, feasible, important, and had face validity. 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)*: NCQA received feedback that the measure is understandable, feasible, important and valid.	
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** 5.1 **If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:** NCQA´s Chlamydia Screening HEDIS measure is currently NQF endorsed; however, this measure is for health plan level of measurement. In addition, the HEDIS measure does not currently assess follow-up of abnormal results.	**3c** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐ M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Ratin g
4a. Data Generated as a Byproduct of Care Processes 4a.1-2 **How are the data elements that are needed to compute measure scores generated?** Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** C☐ P☐ M☐ N☐
4b. Electronic Sources	**4b** C☐

4b.1 Are all the data elements available electronically? (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** NCQA plans to eventually adapt this measure for use in electronic health records.	P☐ M☐ N☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** C☐ P☐ M☐ N☐ NA☐
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.** During the measure development process the Child Health MAP and measure development team worked with NCQA's certified auditors and audit department to ensure that the measure specifications were clear and auditable. The denominator, numerator and optional exclusions are concisely specified and align with our audit standards.	**4d** C☐ P☐ M☐ N☐
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Based on field test results, we have specified the measure to assess whether screening was documented and whether use of a standardized tool was documented. Our field test results showed that these data elements are available in the medical record. In addition, our field test participants noted that many were able to program these requirements into their electronic health record systems, and several implemented point-of-service physician reminders for this measure. **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Collecting measures from medical charts is time-consuming and can be burdensome. Adapting this measure in electronic health records may relieve some of this burden. **4e.3 Evidence for costs:** Based on field test participant feedback and other stakeholder input. **4e.4 Business case documentation:**	**4e** C☐ P☐ M☐ N☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** C☐ P☐ M☐ N☐
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited** ☐
Steering Committee: Do you recommend for endorsement?	**Y**☐

Comments:	N☐ A☐

CONTACT INFORMATION

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

Co.2 Point of Contact
Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-

Measure Developer If different from Measure Steward
Co.3 Organization
National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005

Co.4 Point of Contact
Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-

Co.5 Submitter If different from Measure Steward POC
Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-, National Committee for Quality Assurance

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

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.
Child Health Measurement Advisory Panel:
Jeanne Alicandro
Barbara Dailey
Denise Dougherty, PhD
Ted Ganiats, MD
Foster Gesten, MD
Nikki Highsmith, MPA
Charlie Homer, MD, MPH
Jeff Kamil, MD
Elizabeth Siteman
Mary McIntyre, MD, MPH
Virginia Moyer, MD, MPH, FAAP
Lee Partridge
Xavier Sevilla, MD, FAAP
Michael Siegal
Jessie Sullivan

Ad.2 If adapted, provide name of original measure: NA
Ad.3-5 If adapted, provide original specifications URL or attachment

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.6 Year the measure was first released:
Ad.7 Month and Year of most recent revision:
Ad.8 What is your frequency for review/update of this measure?
Ad.9 When is the next scheduled review/update for this measure?

Ad.10 Copyright statement/disclaimers:

Ad.11 -13 Additional Information web page URL or attachment:

Date of Submission (*MM/DD/YY*)**:** 08/30/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1407 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 Measure Title: Adolescent Immunization
De.2 Brief description of measure: The percentage of adolescents who had proper immunizations. Two measures are reported. We are combining the measures into one form because measure features and evidence are the same or similar. 1. Immunizations by 13 years of age 2. Immunizations by 18 years of age
1.1-2 Type of Measure: Process **De.3 If included in a composite or paired with another measure, please identify composite or paired measure** This measure appears in the composite Comprehensive Well Care by Age 13 Years and Comprehensive Well Care by Age 18 Years.
De.4 National Priority Partners Priority Area: Care coordination, Population health **De.5 IOM Quality Domain:** Effectiveness, Timeliness **De.6 Consumer Care Need:** Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* **A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes **A.2 Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure **A.3 Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of	**A** Y☐ N☐

measure submission A.4 **Measure Steward Agreement attached:**	
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement Accountability	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Affects large numbers, Leading cause of morbidity/mortality, Severity of illness, Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** Preventing disease through vaccination eliminates the costs associated with treating that disease including doctor visits and hospital stays, as well as time lost from work for parents. A study analyzing a cohort of 4.1 million children estimated that 2.87 million pertussis cases would occur, resulting in 1,131 deaths; 276,750 diphtheria cases, resulting in 27,675 deaths; and 165 tetanus cases, resulting in 25 deaths. From the societal perspective, these cases would cost $23,536.5 million, with approximately $18,772.4 million (80%) for diphtheria and $4,770.1 million (20%) for pertussis (Ekwueme, D.U., P.M. Strebel, S.C. Hadler, M.I. Meltzer, J.W. Allen and J.R. Livengood, 2000). With the use of the Tdap vaccine, the number of diphtheria, tetanus and pertussis cases has been reduced by 99%, 93% and 96%, respectively (Ekwueme, D.U., P.M. Strebel, S.C. Hadler, M.I. Meltzer, J.W. Allen, and J.R. Livengood, 2000). Costs associated with pertussis cases include medical costs of visits and treatment, as well as nonmedical costs that include time missed from work or school. The mean medical cost of an adolescent case of pertussis can reach $256 for severe cases, and $416 when nonmedical expenses are included (figures in	**1a** C☐ P☐ M☐ N☐

2004 dollars). The total costs associated with pertussis are highly dependent on the incidence estimate of the disease, which ranged from 155 per 100,000 to 507 per 100,000 across two studies (CDC, 2006). The estimated lifetime costs of sequelae ranged from $44,000 for cases of hearing loss to almost $865,000 for severe retardation. Indirect costs in lost productivity were estimated to be $1 million per case (NFID, 2005). Because of the potential severity of the disease, the financial costs per case of meningococcal disease are high per case but low for society due to the low incidence.

1a.4 **Citations for Evidence of High Impact:** Ekwueme, D.U., P.M. Strebel, S.C. Hadler, M.I. Meltzer, J.W. Allen, and J.R. Livengood. Economic Evaluation of Use of Diphtheria, Tetanus, and Acellular Pertussis Vaccine or Diphtheria Tetanus, and Whole-Cell Pertussis Vaccine in the United States, 1997. Arch Pediatr Adolesc Med. 2000; 154: 797-803.

CDC. Preventing Tetanus, Diphtheria, and Pertussis Among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices. MMWR. March 24, 2006.

National Foundation for Infectious Disease. Reducing the Impact of Meningococcal Disease in Adolescents and Young Adults. July 2005.

1b. Opportunity for Improvement

1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** Preventing pertussis in adolescents would reduce disease among that population and perhaps others by eliminating a reservoir of the disease. Pertussis symptoms can be unpleasant and last for months but long term effects are rare. Meningococcal disease, on the other hand, can be deadly or debilitating. MCV4 has the potential to prevent morbidity and mortality among vaccinated adolescents as well as create a herd immunity effect, but the strategic importance is lessened due to low incidence of the disease. The fact that meningococcal disease requires a public health response is communicable and can cause significant stress within a community increases its strategic importance.

Most cases of meningococcal disease are sporadic—less than 5% of cases occur in outbreaks—but the frequency of outbreaks has increased (Jackson 1995; Woods 1998). Each case requires a public health response which includes contact tracing and antimicrobial prophylaxis. The meningococcus bacterium is spread by direct, close contact with respiratory and oral secretions of an infected person. It is often misdiagnosed because early symptoms (including sudden onset of fever, headache and stiff neck) are similar to the flu. The infection can develop and spread very quickly within the body. Even with rapid and appropriate treatment, the disease can kill an otherwise healthy young person in 48 hours or less (NFID, 2005). Statistics show that even with treatment, 10%-15% of those who get the disease will die and 20% of survivors suffer permanent problems, including brain damage, kidney damage, hearing loss or limb amputation (NFID 2005). Antibiotics are also recommended for those in close contact with an identified case of meningococcal disease.
Many states have mandates regarding meningococcal disease and college students residing on campus. The majority of states (n=33) require education about the disease and strategies for prevention. Twelve states require proof of the vaccination or a waiver for incoming students residing on campus (Immunization Action Coalition 2006).
While almost 90 percent of both low- and high-risk HPV infections occur without any symptoms and go away without treatment,(CDC) persistent HPV infection, or HPV infection lasting several months or years, significantly increases a person's risk of developing cancer. While it is not yet known how long vaccine-induced immunity will last, nearly 100 percent of the precancerous cervical cell changes caused by the types of HPV targeted by vaccination have been prevented for up to four years.(National Cancer Institute, 2007)

Citation:
Jackson, L.W., A. Schuchat, M.W. Reeves, et al. Serogroup C meningococcal outbreaks in the United Stated: an emerging threat. JAMA. 1995;273:;383-389.

National Foundation for Infectious Disease. Reducing the Impact of Meningococcal Disease in Adolescents and Young Adults. July 2005.

1b
C ☐
P ☐
M ☐
N ☐

Immunization Action Coalition. Meningococcal Prevention Mandates for Colleges and Universities. October 2006. http://www.immunize.org/laws/menin.htm.

Centers for Disease Control and Prevention. Genital HPV Infection - CDC Fact Sheet. http://www.cdc.gov/STD/HPV/STDFact-HPV.htm

Human Papillomavirus (HPV) Vaccines: Questions and Answers. National Cancer Institute, 2007. http://www.cancer.gov/cancertopics/factsheet/prevention/hpv-vaccine

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:

In the United States, adolescent immunization rates have historically lagged behind early childhood immunization rates. In 2000, the American Academy of Pediatrics reported that 35 million adolescents failed to receive at least one recommended vaccination (Little, 2000). Low immunization rates among adolescents have the potential to cause outbreaks of preventable diseases and to establish reservoirs of disease in adolescents that can affect other populations including infants, the elderly and individuals with chronic conditions. Immunization recommendations for adolescents have changed in recent years. In addition to catch-up immunizations that may have been missed during childhood and infancy, there are new vaccines targeted specifically to adolescents. The ACIP recommended the following immunizations for adolescents age 11–12 years:

- 1 dose Tdap (or Td)
- 1 dose MCV4 (or MPSV4)

Gardasil® was approved by the Food and Drug Administration in 2006 and incorporated into ACIP recommendations published in March 2007. Since then, early reports have indicated that about one quarter (25.1 percent) of adolescent females age 13 to 17 years had initiated the vaccine series (>1 dose). (MMWR, 2008) An estimated 32.3 percent had received 1 dose, 44.2 percent had received 2 doses, and 23.5 percent had received 3 doses. (MMWR, 2008)This was the first year HPV coverage was reported.

1b.3 Citations for data on performance gap:

Little, J. 35 million teens missing recommended vaccines. AAP News. 2000;17(3):81.

Vaccination Coverage Among Adolescents Aged 13--17 Years --- United States, 2007. MMWR: October 10, 2008 / 57(40);1100-1103.

1b.4 Summary of Data on disparities by population group:

Variations in immunization coverage exist among some populations. Children of lower socioeconomic status are less likely to be fully immunized, as the vaccine is expensive, at $120-125 per dose on average for the three shot series. While some health insurance plans cover the costs of the HPV vaccine doses and clinic visits, not all currently provide coverage. Those without coverage are unlikely to be able to afford the vaccine. Children age 18 and younger who are eligible for the Vaccines for Children (VFC) program, including those who are Medicaid eligible, uninsured, or American Indian or Alaska Native, may be able to receive the HPV vaccine for a nominal cost.

Parental acceptance of the HPV vaccine also affects vaccine usage. One study found that 25 percent of parents have reservations about having their daughters immunized, due to concern that vaccination might influence their daughter's sexual behaviors, their uneasiness about the morality of immunizing to prevent sexually transmitted infections, and worries about the safety of the vaccine.

1b.5 Citations for data on Disparities:

NCHS, Health, United States, 2002, Table 73.
National Immunization Program (NIP), Priorities, 2003, Page 7.
Kane, Mark M.D., M.P.H., Heidi Lasher. The Case for Childhood Immunization. www.path.org/vaccineresources/files/CVP_Occ_Paper5.pdf. Updated March 2002.

1c. Outcome or Evidence to Support Measure Focus

1c
C☐
P☐

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired*

outcome. For outcomes, describe why it is relevant to the target population)**:** Vaccination has been recognized as a leading medical achievement of the 20th century and the U.S. early childhood immunization program that focuses on infant and early childhood immunizations has been a remarkable success (NFID, 2004). Translating that success to the adolescent population is of significant health importance because the failure to do so can result in outbreaks of vaccine-preventable diseases, increased disease-associated costs and reservoirs of disease in the adolescent population that can affect others, including infants and the elderly. The diseases prevented by recommended adolescent vaccines—pertussis, meningococcal disease, HPV infection and eventually, cervical cancer—can be serious and deadly. Preventing these diseases is a significant public health accomplishment.

1c.2-3. Type of Evidence: Evidence-based guideline, Expert opinion

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
Pertussis is an acute respiratory infection characterized by a prolonged cough. It is a highly communicable disease that is transmitted via respiratory droplets from coughing or sneezing. A vaccine against the disease—DTP or pediatric diphtheria and tetanus toxoids—has been routinely recommended for young children since the 1940s. Early childhood vaccination resulted in dramatic declines in cases of pertussis to an historic low of 1,010 in 1976, but since the 1980s the number of cases has been increasing, especially among adolescents and adults (CDC 2006; CDC 2005; Farizo 1992; Guris 1999). A primary reason for the continued circulation of pertussis is that immunity to pertussis wanes approximately 5–10 years after completion of the childhood pertussis vaccination, leaving adolescents and adults vulnerable. Vaccinating adolescents against pertussis would not only protect against disease but would likely reduce the reservoir of pertussis within the population at large thereby reducing the risk for vulnerable populations such as infants.
During 2004, a total of 25,827 cases of pertussis were reported in the U.S. and 8,897 of those (34%) were among adolescents for an incidence for adolescents of 30 per 100,000 (CDC 2005). From 1996–2004, Massachusetts' enhanced surveillance system reported an average annual incidence among adolescents of 93 per 100,000 (CDC 2005). The incidence of pertussis varies widely from state to state and from year to year. One reason for the variance is that reported cases of pertussis in adolescents often happen in outbreaks at schools where close interaction occurs among large number of students with waning immunity (CDC 2005).
Data from enhanced surveillance sites and prospective studies indicate that the national passive surveillance data substantially underestimate the true incidence of pertussis because reliable diagnostic tests are not widely available and not all diagnosed cases are reported. One study suggested that approximately 1 million cases of pertussis occur annually among persons over age 15 years in the U.S. (Ward 2005).

Meningococcal disease is a serious illness caused by the bacterium neisseria meningitides, which can cause meningitis and meningococcemia, an infection of the blood. The disease affects up to 2,600 people in the U.S. every year and is a leading cause of bacterial meningitis in children 2–18 years of age in the U.S. (HealthLink 2004). Incidence of meningococcal disease is highest in children under 2 years, but also spikes in adolescents and young adults. In the 1990s, 13%–14% of disease nationwide was in persons 11–18 years (NIFD 2005). Other studies have shown that the disease peaks in 15–18-year-olds and that adolescents have the highest fatality rate, at about 20% (AAP 2005).

Human papillomaviruses (HPVs) are a group of more than 100 related viruses.(National Cancer Institute)About 60 types of HPV cause warts, or papillomas, on the hands and feet. The other 40 viruses are mucosal, or genital, and are often associated with genital warts and certain types of cancer.(Devision of STD Prevention, 1999) Approximately 20 million Americans are currently infected with HPV, and another 6.2 million people become newly infected each year. (CDC)
Genital HPV is passed from one person to another through sexual contact(Devision of STD Prevention, 1999) and is currently the most common sexually transmitted infection (STI).(CDC) It is estimated that approximately 50 percent of sexually active men and women will acquire a genital HPV infection at some point in their lives.(CDC) Genital HPV viruses are divided into two categories: "low-risk," or wart-causing, and "high-risk", or those that put a person at risk for cancer. These high-risk, or oncogenic, types of HPV cause 100 percent of cervical cancers, 90 percent of anal cancers, 40 percent of vulvar and vaginal cancers, 12 percent of oropharyngeal cancers, and three percent of oral cancers.(Parkin DM, 2006)

M☐
N☐

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom***):**
NA

1c.6 Method for rating evidence: The U.S. Preventive Services Task Force, an independent panel of experts that rate the evidence for preventive services, defers to the CDC's Advisory Committee on Immunization Practices (ACIP) guidelines for recommended vaccinations. ACIP consists of 15 experts in fields associated with immunization, who have been selected by the Secretary of the U. S. Department of Health and Human Services to provide advice and guidance to the Secretary, the Assistant Secretary for Health, and the Centers for Disease Control and Prevention (CDC) on the control of vaccine-preventable diseases. In addition to the 15 voting members, ACIP includes 8 ex officio members who represent other federal agencies with responsibility for immunization programs in the United States, and 26 non-voting representatives of liaison organizations that bring related immunization expertise.
The role of the ACIP is to provide advice that will lead to a reduction in the incidence of vaccine preventable diseases in the United States, and an increase in the safe use of vaccines and related biological products.

The Committee develops written recommendations for the routine administration of vaccines to children and adults in the civilian population; recommendations include age for vaccine administration, number of doses and dosing interval, and precautions and contraindications. The ACIP is the only entity in the federal government that makes such recommendations.

To formulate policy recommendations, the ACIP reviews data on morbidity and mortality associated with the disease in the general US population and in specific risk groups along with available sci¬entific literature (both published and unpublished) on the safety, efficacy, effectiveness, cost-effectiveness, and acceptability of the immunizing agent, with consideration of the relevant quality and quantity of data. When data permit, specific rules of evidence – such as those followed by the US Preventive Services Task Force – are used to judge the quality of data and to make decisions regarding the nature and strength of recommendations. In the absence of data or when data are inadequate, expert opinions of voting members and other experts are used to make recommendations.

Other considerations and inputs used in formulating policy recommendations include clinical trial results and information pro¬vided in the manufacturer's labeling or package insert; equity in access to the vaccine and responsible management of public funds; recommendations of other professional liaison organizations; and the feasibility of incorporating the vaccine into existing immuniza¬tion programs. ACIP Work Groupss often review WHO recommendations as a secondary source of information in their deliberations.

1c.7 Summary of Controversy/Contradictory Evidence: None

1c.8 Citations for Evidence (*other than guidelines***):** Centers for Disease Control and Prevention (CDC). Vaccines and Immunizations: HPV Vaccination. http://www.cdc.gov/vaccines/vpd-vac/hpv/default.htm

Centers for Disease Control and Prevention. Genital HPV Infection - CDC Fact Sheet. http://www.cdc.gov/STD/HPV/STDFact-HPV.htm

CDC. Prevention and Control of Meningococcal Disease: Recommendation of the Advisory Committee on Immunization Practices. MMWR. May 27, 2005.

CDC. Preventing Tetanus, Diphtheria, and Pertussis Among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices. MMWR. March 24, 2006.

Centers for Disease Control and Prevention (CDC). Vaccines and Immunizations: HPV Vaccination. http://www.cdc.gov/vaccines/vpd-vac/hpv/default.htm

Division of STD Prevention. Prevention of genital HPV infection and sequelae: Report of an external consultants' meeting. Atlanta, GA: Centers for Disease Control and Prevention, 1999.

Farizo, K.M., S.L. Cochi, E.R. Zell, et al. Epidemiological features of pertussis in the United States, 1980-1989. Clinical Infectious Disease. 1992;14:708-719.

Guris, D., P.M. Strebel, B. Bardenheier, et al. Changing epidemiology of pertussis in the United States: increasing reported incidence among adolescents and adults, 1990-1996. Clinical Infectious Disease. 1999;28:1230-1237.

HealthLink. The Facts about Meningococcal Disease. Medical College of Wisconsin, September 2004.

National Foundation for Infectious Disease. Reducing the Impact of Meningococcal Disease in Adolescents and Young Adults. July 2005.

National Cancer Institute. Human Papillomaviruses and Cancer: Questions and Answers. http://www.cancer.gov/cancertopics/factsheet/Risk/HPV

Parkin DM, Bray F. Chapter 2: the burden of HPV-related cancers. Vaccine 2006;24:Suppl 3:S11-S25.

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number***):**
ACIP [CDC , AAP, AAFP] (2009): Children 7—18:
1. Tetanus and diphtheria toxoids and acellular pertussis vaccine(Tdap). (Minimum age: 10 years for BOOSTRIX® and 11 years for ADACEL®)
1. Administer at age 11 or 12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a tetanus and diphtheria toxoid (Td) booster dose.
2. Persons aged 13 through 18 years who have not received Tdap should receive a dose.
3. A 5-year interval from the last Td dose is encouraged when Tdap is used as a booster dose; however, a shorter interval may be used if pertussis immunity is needed.
2. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)
4. Administer the first dose to females at age 11 or 12 years.
5. Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose (at least 24 weeks after the first dose).
6. Administer the series to females at age 13 through 18 years if not previously vaccinated.
3. Meningococcal conjugate vaccine (MCV).
7. Administer at age 11 or 12 years, or at age 13 through 18 years if not previously vaccinated.
8. Administer to previously unvaccinated college freshmen living in a dormitory.
9. MCV is recommended for children aged 2 through 10 years with terminal complement component deficiency, anatomic or functionalasplenia, and certain other groups at high risk. See MMWR 2005;54(No. RR-7).
10. Persons who received MPSV 5 or more years previously and remain at increased risk for meningococcal disease should be revaccinated with MCV.
4. Influenza vaccine.
11. Administer annually to children aged 6 months through 18 years.
12. For healthy nonpregnant persons (i.e., those who do not have underlying medical conditions that predispose them to influenza complications) aged 2 through 49 years, either LAIV or TIV may be used.
13. Administer 2 doses (separated by at least 4 weeks) to children aged younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.
5. Pneumococcal polysaccharide vaccine (PPSV).
- Administer to children with certain underlying medical conditions (see MMWR 1997;46[No. RR-8]), including a cochlear implant. A single revaccination should be administered to children with functional or anatomic asplenia or other immunocompromising condition after 5 years.
6. Hepatitis A vaccine (HepA).
- Administer 2 doses at least 6 months apart.
- HepA is recommended for children older than 1 year who live in areas where vaccination programs target older children or who are at increased risk of infection. See MMWR 2006;55(No. RR-7).
7. Hepatitis B vaccine (HepB).
- Administer the 3-dose series to those not previously vaccinated.
- A 2-dose series (separated by at least 4 months) of adult formulation Recombivax HB is licensed for

children aged 11 through 15 years. 8. Inactivated poliovirus vaccine (IPV). - For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if the third dose was administered at age 4 years or older. - If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age. 9. Measles, mumps, and rubella vaccine (MMR). - If not previously vaccinated, administer 2 doses or the second dose for those who have received only 1 dose, with at least 28 days between doses. 10. Varicella vaccine. - For persons aged 7 through 18 years without evidence of immunity (see MMWR 2007;56[No. RR-4]), administer 2 doses if not previouslyvaccinated or the second dose if they have received only 1 dose. - For persons aged 7 through 12 years, the minimum interval between doses is 3 months. However, if the second dose was administered at least 28 days after the first dose, it can be accepted as valid. - For persons aged 13 years and older, the minimum interval between doses is 28 days. ICSI (2008): Children Ages 11—18: 1. Diphtheria and Tetanus Toxoids and Acellular Pertussis (DTaP/Td/Tdap) Vaccine Tdap should be given routinely at age 11-12 years of age, as well as to older adolescents 13-18 of age who missed the 11- to 12-year-old dose, as a one-time booster for adults in place of Td. 2. Meningococcal Vaccine For those adolescents who have not previously received the meningococcal conjugate vaccine, vaccination is recommended before high school entry for children at 11 to 12 years of age. Those unvaccinated adolescents 13 to 18 years of age should also undergo vaccination 3. Human Papillomavirus (HPV) Vaccine A vaccine for human papillomavirus (HPV) has been licensed for women ages 9 through 26, and the Advisory Committee on Immunization Practices has recommended routine use of the vaccine for all 11- to 12-year-old females, and catch-up use of the vaccine for females ages 12 through 26 **1c.10 Clinical Practice Guideline Citation:** Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, 2009*. Ann Intern Med 2009 Jan 6;150(1):40-4. PubMed ICSI: Immunizations (Guideline). Updated January 2009. **1c.11 National Guideline Clearinghouse or other URL:** Immunization programs for infants, children, adolescents, and adults: clinical practice guidelines by the Infectious Diseases Society of America. http://www.guideline.gov/content.aspx?id=15442&search=adolescent+immunizations **1c.12 Rating of strength of recommendation (***also provide narrative description of the rating and by whom***):** NA **1c.13 Method for rating strength of recommendation** (*If different from* USPSTF system, *also describe rating and how it relates to USPSTF)*: NA **1c.14 Rationale for using this guideline over others:** The measure follows the ACIP guidelines. ACIP is an independent panel that advises the Secretary of Health and Human Services and the Centers for Disease Control and Prevention on immunization practices.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	Eval Rating

2a. MEASURE SPECIFICATIONS

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):**
"Numerator 1: Children who had documentation in the medical record of recommended immunizations by age 13 years
Numerator 2: Children who had documentation in the medical record of recommended immunizations by age 18 years"

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator***):**
2 years

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions***):**
"For immunization evidence obtained from the medical record, the organization may count members where there is evidence that the antigen was rendered from one of the following.
• A note indicating the name of the specific antigen and the date of the immunization, or
• A certificate of immunization prepared by an authorized health care provider or agency including the specific dates and types of immunizations administered
One meningococcal conjugate or meningococcal polysaccharide vaccine on or between the 11th and 13th birthdays.
One tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) on or between the 10th and 13th birthdays.
One meningococcal vaccine on or between the 11th and 13th birthday and one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) on or between the 10th and 13th birthdays.
Three HPV vaccinations, with different dates of service on or before the 13th birthday.
For documented history of illness or a seropositive test result, the organization must find a note indicating the date of the event, which must have occurred by the member's 13th birthday.
Notes in the medical record indicating that the member received the immunization "at delivery" or "in the hospital" may be counted toward the numerator. This applies only to immunizations that do not have minimum age restrictions (e.g., before 42 days after birth). A note that the "member is up to date" with all immunizations but which does not list the dates of all immunizations and the names of the immunization agents does not constitute sufficient evidence of immunization for HEDIS reporting.
Immunizations documented using a generic header or "DTaP/DTP/DT" can be counted as evidence of DTaP. The burden on organizations to substantiate the DTaP antigen is excessive compared to any risk associated with data integrity."

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
"Denominator 1. Children who turned 13 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months.
Denominator 2: Children who turned 18 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months."

2a.5 Target population gender: Female, Male
2a.6 Target population age range: Measure 1: 6 years-13 years; Measure 2: 13-18 years

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
1 year

2a-specs
C☐
P☐
M☐
N☐

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
See above; chart review only

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** HPV: Exclude males

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
See above; chart review only

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
None

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**
NA

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
Step 1: Determine the denominator
Children who turned the requisite age in the measurement year, AND
Who had a visit within the past 12 months of the child´s birthday
Step 2: Determine the numerator
Children who had documentation in the medical record of the screening or service during the measurement year or the year previous to the measurement year.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**
Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance.

2a.23 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)*:
For this physician-level measure, we anticipate the entire population will be used in the denominator. If a sample is used, a random sample is ideal. NCQA's work has indicated that a sample size of 30-50 patients would be necessary for a typical practice size of 2000 patients.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Paper medical record/flow-sheet, Electronic clinical data, Electronic Health/Medical Record

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Medical Record

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Clinicians: Individual, Clinicians: Group, Population: national, Population: regional/network

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care: Office, Ambulatory Care: Clinic, Ambulatory Care: Hospital Outpatient

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*) Clinicians: Nurses, Clinicians: PA/NP/Advanced Practice Nurse, Clinicians: Physicians (MD/DO)	
TESTING/ANALYSIS	
2b. Reliability testing **2b.1 Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure. **2b.2 Analytic Method** *(type of reliability & rationale, method for testing)*: We did not conduct reliability testing for this measure. **2b.3 Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*: We did not conduct reliability testing for this measure.	**2b** C☐ P☐ M☐ N☐
2c. Validity testing **2c.1 Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) **2c.2 Analytic Method** *(type of validity & rationale, method for testing)*: NCQA tested the measure for face validity using a panel of stakeholders with specific expertise in measurement and child health care. This panel included representatives from key stakeholder groups, including pediatricians, family physicians, health plans, state Medicaid agencies and researchers. Experts reviewed the results of the field test and assessed whether the results were consistent with expectations, whether the measure represented quality care, and whether we were measuring the most important aspect of care in this area. This measure was deemed valid by the expert panel. In addition, this measure does not utilize administrative data sources; data recorded in the chart is considered the gold standard. **2c.3 Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: NA	**2c** C☐ P☐ M☐ N☐
2d. Exclusions Justified **2d.1 Summary of Evidence supporting exclusion(s):** For the HPV antigen, males are excluded. ACIP only recently (May 28, 2010) released guidance that males could receive HPV vaccination. NCQA´s policy is to allow time between new vaccine releases and reporting requirements for measures. **2d.2 Citations for Evidence:** Centers for Disease Control and Prevention. MMWR May 28, 2010. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5920a5.htm?s_cid=mm5920a5_e **2d.3 Data/sample** *(description of data/sample and size)*: NA **2d.4 Analytic Method** *(type analysis & rationale)*: NA **2d.5 Testing Results** *(e.g., frequency, variability, sensitivity analyses)*: NA	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures **2e.1 Data/sample** *(description of data/sample and size)*: NA **2e.2 Analytic Method** *(type of risk adjustment, analysis, & rationale)*: NA	**2e** C☐ P☐ M☐ N☐ NA☐

2e.3 Testing Results *(risk model performance metrics)*: NA **2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:** The measure assesses prevention and wellness in a general population; risk adjustment is not indicated.	
2f. Identification of Meaningful Differences in Performance **2f.1 Data/sample from Testing or Current Use** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*: Measure 1: Immunizations for Adolescents by Age 13 Years Rate: Meningococcal Elig Population: 179 Immunization Documented in Medical Record: 82% Rate: Tdap/Td Elig Population: 179 Immunization Documented in Medical Record: 11% Rate: HPV Elg Population: 89 Immunization Documented in Medical Record: 21% Measure 2: Immunizations for Adolescents by Age 18 Years HPV Rate: Fixing analysis	**2f** C☐ P☐ M☐ N☐
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) **2g.2 Analytic Method** *(type of analysis & rationale)*: This measure is chart review only; no other sources were identified by the expert panel; this measure does not utilize administrative data **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*: NA	**2g** C☐ P☐ M☐ N☐ NA☐
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: The measure is not stratified to detect disparities. **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:** NA	**2h** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐

	M☐ N☐
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information 3a.1 **Current Use:** Not in use but testing completed 3a.2 **Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*)**:** This measure is not currently publicly reported. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. 3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** This measure is not currently used in QI. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. NCQA anticipates that after we release these measures, they will become widely used, as all our measures do. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)***:** NA 3a.5 **Methods** *(e.g., focus group, survey, QI project)***:** NCQA vetted the measures with its expert panel. In addition, throughout the development process, NCQA vetted the measure concepts and specifications with other stakeholder groups, including the National Association of State Medicaid Directors, NCQA's Health Plan Advisory Council, NCQA's Committee on Performance Measurement, and the American Academy of Pediatrician's Quality Improvement Innovation Network. After field testing, NCQA also conducted a debrief call with field test participants. In the form of a group interview, NCQA systematically sought feedback on whether the measures were understandable, feasible, important, and had face validity. 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)***:** NCQA received feedback that the measure is understandable, feasible, important and valid.	**3a** C☐ P☐ M☐ N☐
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:**	**3c** C☐ P☐ M☐

5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality: NA	**N☐ NA☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** **C☐** **P☐** **M☐** **N☐**
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** **C☐** **P☐** **M☐** **N☐**
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** NCQA plans to eventually specify this measure for electronic health records.	**4b** **C☐** **P☐** **M☐** **N☐**
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** **C☐** **P☐** **M☐** **N☐** **NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.** During the measure development process the Child Health MAP and measure development team worked with NCQA's certified auditors and audit department to ensure that the measure specifications were clear and auditable. The denominator, numerator and optional exclusions are concisely specified and align with our audit standards.	**4d** **C☐** **P☐** **M☐** **N☐**
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Based on field test results, we have specified the measure to assess whether screening was documented and whether use of a standardized tool was documented. Our field test results showed that these data	**4e** **C☐** **P☐** **M☐** **N☐**

elements are available in the medical record. In addition, our field test participants noted that many were able to program these requirements into their electronic health record systems, and several implemented point-of-service physician reminders for this measure. 4e.2 **Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Collecting measures from medical charts is time-consuming and can be burdensome. Adapting this measure in electronic health records may relieve some of this burden. 4e.3 **Evidence for costs:** Based on field test participant feedback and other stakeholder input. 4e.4 **Business case documentation:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** **C☐** **P☐** **M☐** **N☐**
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited ☐**
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**
CONTACT INFORMATION	
Co.1 **Measure Steward (Intellectual Property Owner)** Co.1 **Organization** National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005 Co.2 **Point of Contact** Sepheen, Byron, byron@ncqa.org, 202-955-3573-	
Measure Developer If different from Measure Steward Co.3 **Organization** National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005 Co.4 **Point of Contact** Sepheen, Byron, byron@ncqa.org, 202-955-3573-	
Co.5 **Submitter If different from Measure Steward POC** Sepheen, Byron, byron@ncqa.org, 202-955-3573-, National Committee for Quality Assurance	
Co.6 **Additional organizations that sponsored/participated in measure development**	
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.** Child Health Measurement Advisory Panel: Jeanne Alicandro	

Barbara Dailey Denise Dougherty, PhD Ted Ganiats, MD Foster Gesten, MD Nikki Highsmith, MPA Charlie Homer, MD, MPH Jeff Kamil, MD Elizabeth Siteman Mary McIntyre, MD, MPH Virginia Moyer, MD, MPH, FAAP Lee Partridge Xavier Sevilla, MD, FAAP Michael Siegal Jessie Sullivan
Ad.2 If adapted, provide name of original measure: NA **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** **Ad.7 Month and Year of most recent revision:** **Ad.8 What is your frequency for review/update of this measure?** **Ad.9 When is the next scheduled review/update for this measure?**
Ad.10 Copyright statement/disclaimers: © 2009 by the National Committee for Quality Assurance 1100 13th Street, NW, Suite 1000 Washington, DC 20005
Ad.11 -13 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*)**:** 08/30/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1393 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Blood Pressure Screening
De.2 **Brief description of measure***:* The percentage of children who had a blood pressure screening and proper follow-up performed. We are combining three measures into one form because measure features and evidence are the same or similar. Measure 1. Blood Pressure Screening By age 6 years. Measure 2. Blood Pressure Screening By age 13 years Measure 3. Blood Pressure Screening By age 18 years
1.1-2 **Type of Measure:** Process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** This measure appears in the composite Comprehensive Well Care by Age 6 Years, Comprehensive Well Care by Age 13 Years and Comprehensive Well Care by Age 18 Years.
De.4 **National Priority Partners Priority Area:** Care coordination, Population health De.5 **IOM Quality Domain**: Effectiveness, Timeliness De.6 **Consumer Care Need:** Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure	**A** Y☐ N☐

A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ►**Purpose:** Public reporting, Internal quality improvement Accountability	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Affects large numbers, High resource use, Severity of illness, Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** High blood pressure (hypertension) is a growing concern for children in the U.S., due mostly in part to a rapid increase in childhood obesity (Luma, 2006). A recent study of National Health and Nutrition Examination Survey data showed that, during 2003-2006, 2.6 percent of boys and 3.4 percent of girls age eight to 17 years had high blood pressure. Moreover, 13.6 percent of boys and 5.7 percent of girls in this age group had pre-high blood pressure. Overweight boys and obese boys and girls were significantly more likely to have these classifications (Ostchega Y, 2009). Autopsy reports of children and adolescents who have died unexpectedly have shown a positive and significant association with systolic and diastolic blood pressure and body mass index (BMI) (Hayman, 2003). Autopsy reports of adults with high levels of cholesterol and coronary heart disease showed that precursors to these diseases began in childhood (National Cholesterol Education Program). High blood pressure represents a significant financial burden. In 2006, the direct and indirect costs of high	**1a** C☐ P☐ M☐ N☐

blood pressure were estimated at $63.5 billion overall (CDC, 2007). In addition to costs, resource utilization is also significantly higher among hypertensive people. Prescription medicines, inpatient visits, and outpatient visits constitute more than 90 percent of the overall incremental cost of treating hypertension (Balu, 2005). These costs can be expected to rise with increasing prevalence among children.

1a.4 Citations for Evidence of High Impact: Balu, Sanjeev. Incremental cost of treating hypertension in the United States. http://docs.lib.purdue.edu/dissertations/AAI3191421/. Updated 2005.

Centers for Disease Control and Prevention. High Blood Pressure Facts. http://www.cdc.gov/bloodpressure/facts.htm. Updated February 2007.

L. Hayman and Kathryn Taubert Rae-Ellen W. Kavey, Stephen R. Daniels, Ronald M. Lauer, Dianne L. Atkins, Laura American Heart Association Guidelines for Primary Prevention of Atherosclerotic Cardiovascular Disease Beginning in Childhood. Circulation 2003;107;1562-1566. http://www.circ.ahajournals.org/cgi/reprint/107/11/1562

Luma, GB, MD and Spiotta RT, MD. Hypertension in Children and Adolescents. American Family Physician; Vol 73, Number 9. May, 2006

National Cholesterol Education Program. Overview and Summary. Pediatrics; Mar92 Part 2, Vol. 89 Issue 3, p525. http://web.ebscohost.com.proxygw.wrlc.org/ehost/pdf?vid=3&hid=8&sid=d3fa709d-0a3b-42ab-8371-6416129fe41f%40sessionmgr3

National Heart, Lung and Blood Institute. National Institutes of Health. High Blood Pressure. Nov 2008. http://www.nhlbi.nih.gov/health/dci/Diseases/Hbp/HBP_WhatIs.html

The Nemours Foundation. High Blood Pressure (Hypertension). http://kidshealth.org/parent/medical/heart/hypertension.html. Updated: October 2005

Ostchega Y, Carroll M, Prineas RJ, McDowell MA, Louis T, Tilert T. Trends of elevated blood pressure among children and adolescents: data from the National Health and Nutrition Examination Survey 1988-2006. Am J Hypertension. Vol 22(1): 59-67. Jan 2009.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: If hypertension is detected early, children can be monitored and treated, which can lead to a normal and healthy life. If not detected or treated, hypertension can lead to damage of the eyes, heart, kidneys, and brain. In addition, high blood pressure can put children at a higher risk for heart attacks, strokes, kidney failure, and a hardening of the arteries (atherosclerosis) (The Nemours Foundation, 2005). Doctors may discover high blood pressure during a regular blood pressure screening. An early diagnosis and treatment leads to a better prognosis. Blood pressure screening can save lives by starting treatment well before the patient was aware of a problem.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Despite the importance of measurement and treatment, one study found that almost three quarters of children diagnosed with hypertension did not have a diagnosis of high blood pressure in the electronic medical record; this led to undiagnosed hypertension for 75 percent of the children in this study (Hansen, 2007). Moreover, studies have found that hypertension and prehypertension were frequently undiagnosed in this pediatric population (Hansen, 2007).

1b.3 Citations for data on performance gap:
The Nemours Foundation. High Blood Pressure (Hypertension). http://kidshealth.org/parent/medical/heart/hypertension.html. Updated: October 2005

Hansen, ML, MD, et al. Underdiagnosis of Hypertension in Children and Adolescents. Journal of the American Medical Association, Vol 298, No. 8. August 22/29, 2007

Hansen ML, Gunn PW, Kaelber DC. Underdiagnosis of Hypertension in Children and Adolescents. JAMA. Vol.

1b
C☐
P☐
M☐
N☐

298 No. 8, August 22/29, 2007.

1b.4 Summary of Data on disparities by population group:
Major racial/ethnic disparities exist among those with hypertension. One study using national surveys found that an ethnic and gender gap appeared for pre-high blood pressure in 1988 and for high blood pressure in 1999 among children aged eight to 17 years: non-Hispanic blacks and Mexican Americans had a greater prevalence of both high blood pressure and pre-high blood pressure than non-Hispanic whites, and males had a greater prevalence than females (Din-Dzietham R, 2007). Studies suggest that racial differences in blood pressure control rates among those treated cannot be explained by nonpharmacologic management or health insurance, but there is some association with educational attainment (Robin P. Hertz, 2005).

1b.5 Citations for data on Disparities:
Din-Dzietham R, Liu Y, Bielo M, Shamsa F. High blood pressure trends in children and adolescents in national surveys, 1963-2002. Circulation Vol 116(13): 1488. Sep 2007.

Robin P. Hertz, PhD; Alan N. Unger, PhD; Jeffrey A. Cornell, MS; Elijah Saunders, MD. Racial Disparities in Hypertension Prevalence, Awareness, and Management. Arch Intern Med. 2005;165:2098-2104.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** Trials of hypertension treatment that compared pharmacologic and behavioral intervention to usual care showed a beneficial effect of treatment in patients who were enrolled on the basis of elevated blood pressures detected on screening examinations.

1c.2-3. Type of Evidence: Evidence-based guideline, Expert opinion

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
Hypertension is defined as being in the 95th percentile for one's age, height, and gender (The Nemours Foundation, 2005), and it is a precursor to many serious conditions, such as kidney problems, stroke and heart failure (NIH, 2008). The National Heart, Lung and Blood Institute (NHLBI), the American Heart Association and the American Academy of Pediatrics recommend that children who are seen in medical care settings have their blood pressure measured at least once during every health care episode. Children less than 3 years of age should have their BP measured in special circumstances.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom***):**
Good

1c.6 Method for rating evidence: Expert Concensus with evidence review

1c.7 Summary of Controversy/Contradictory Evidence: Though the National Heart, Lung and Blood Institute, the American Academy of Pediatrics, and the AMERICAN HEART ASSOCIATION recommend that children be screened for blood pressure, the U.S. Preventive Services Task Force (USPSTF) concluded that evidence is insufficient to recommend for or against routine screening for high blood pressure in children and adolescents to reduce the risk of cardiovascular disease. The USPSTF found poor evidence that routine blood pressure measurement accurately identifies children and adolescents at increased risk for cardiovascular disease, and poor evidence to determine whether treatment of elevated blood pressure in children or adolescents decreases the incidence of cardiovascular disease. As a result, the USPSTF could not determine the balance of benefits and harms of routine screening for high blood pressure in children and adolescents (I Statement, 2003).

1c.8 Citations for Evidence (*other than guidelines***):** National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents. Pediatrics Vol. 114 No. 2 August 2004.

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N ☐

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number*):
National Heart, Lung and Blood Institute (NHLBI), 2004: The NHLBI states that children >3 years of age who are seen in medical care settings should have their blood pressure (BP) measured at least once during every health care episode. Children <3 years of age should have their BP measured in special circumstances. To confirm hypertension, the BP in children should be measured with a standard clinical sphygmomanometer, using a stethoscope placed over the brachial artery pulse, proximal and medial to the cubital fossa, and below the bottom edge of the cuff (i.e., ~2 cm above the cubital fossa). Ideally, the child whose BP is to be measured should have avoided stimulant drugs or foods, have been sitting quietly for 5 minutes, and seated with his or her back supported, feet on the floor and right arm supported, cubital fossa at heart level. Elevated BP must be confirmed on repeated visits before characterizing a child as having hypertension. Except in the presence of severe hypertension, a more precise characterization of a person's BP level is an average of multiple BP measurements taken over weeks to months. (Expert Consensus)

American Academy of Pediatrics (AAP), 2004: The AAP states that children >3 years of age who are seen in a medical setting should have blood pressure checked during regular office visits. The preferred method of BP measurement is auscultation. Correct measurement requires a cuff that is appropriate to the size of the child´s upper arm. Elevated BP must be confirmed on repeated visits before characterizing a child as having hypertension. Measures obtained by oscillometric devices that exceed the 90th percentile should be repeated by auscultation. (Expert Consensus)

American Heart Association (AHA), 2008: The AHA states that all children should be screened for blood pressure by personnel with specific training in the application of the device and interpretation of ABPM data in pediatric patients. Children should be screened by Auscultation with a standard mercury sphygmomanometer. The right arm is generally the preferred arm for blood pressure measurement for consistency and comparison with the reference tables. For newborn-premature infants, a cuff size of 4X8 cm is recommended; for infants, 6X12 cm; and for older children, 9X18 cm. A standard adult cuff, a large adult cuff, and a thigh cuff for leg blood pressure measurement and for use in children with very large arms should also be available. Elevated blood pressure measurements in a child or adolescent must be confirmed on repeated visits before characterizing a child as having hypertension. Children who show elevated blood pressure on repeated measurement should also have the blood pressure measured in the leg as a screen for coarctation of the aorta. (Expert Consensus)

1c.10 Clinical Practice Guideline Citation: 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

U.S. Preventive Services Task Force. Screening for High Blood Pressure: Recommendations and Rationale. July 2003. Agency for Healthcare Research and Quality

National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents. Pediatrics Vol. 114 No. 2 August 2004.

American Heart Association Guidelines for Primary Prevention of Atherosclerotic Cardiovascular Disease Beginning in Childhood. Circulation. 2003;107:1562-1566.

1c.11 National Guideline Clearinghouse or other URL:
http://www.guidelines.gov/search/search.aspx?term=blood+pressure+screening

1c.12 Rating of strength of recommendation (*also provide narrative description of the rating and by whom*):
Good

1c.13 Method for rating strength of recommendation (*If different from* USPSTF system, *also describe rating and how it relates to USPSTF)*:
Expert consensus with evidence review

1c.14 Rationale for using this guideline over others:
The evidence and guidelines were evaluated by a group of diverse stakeholders and experts, which

concluded that the guidelines were sufficient to develop as a measure that would improve quality of well child care.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. 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)	Eval Rating
2a. MEASURE SPECIFICATIONS	
S.1 **Do you have a web page where current detailed measure specifications can be obtained?** S.2 **If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 **Numerator Statement** (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*)**:** Numerator 1: Children who had documentation in the medical record of blood pressure screening by age 6 years Numerator 2: Children who had documentation in the medical record of blood pressure screening by age 13 years Numerator 3: Children who had documentation in the medical record of blood pressure screening by age 18 years 2a.2 **Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*)**:** 2 years 2a.3 **Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*)**:** Documentation must include a note indicating the following. • A blood pressure result • For abnormal or indeterminate results, evidence of confirmatory testing, referral or treatment	
2a.4 **Denominator Statement** (*Brief, text description of the denominator - target population being measured*)**:** Denominator 1: Children who turned 6 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months. Denominator 2: Children who turned 13 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months. Denominator 3: Children who turned 18 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months. 2a.5 **Target population gender:** Female, Male 2a.6 **Target population age range:** Measure 1: 2 years-6 years, Measure 2: 6 years-13 years, Measure 3: 13 years-18 years 2a.7 **Denominator Time Window** (*The time period in which cases are eligible for inclusion in the denominator*)**:** 1 year	**2a-specs** **C☐** **P☐** **M☐** **N☐**

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
See above; chart review measure

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** None

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
NA

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
None

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**
NA

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
Step 1: Determine the denominator
Children who turned the requisite age in the measurement year, AND
Who had a visit within the past 12 months of the child´s birthday
Step 2: Determine the numerator
Children who had documentation in the medical record of the screening or service during the measurement year or the year previous to the measurement year.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**
Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance

2a.23 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)*:
For this physician-level measure, we anticipate the entire population will be used in the denominator. If a sample is used, a random sample is ideal. NCQA's work has indicated that a sample size of 30-50 patients would be necessary for a typical practice size of 2000 patients.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Paper medical record/flow-sheet, Electronic clinical data, Electronic Health/Medical Record

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Medical Record

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Clinicians: Individual, Clinicians: Group, Population: national, Population: regional/network

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care: Office, Ambulatory Care: Clinic, Ambulatory Care: Hospital Outpatient

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)

Clinicians: Nurses, Clinicians: PA/NP/Advanced Practice Nurse, Clinicians: Physicians (MD/DO)	
TESTING/ANALYSIS	
2b. Reliability testing 2b.1 **Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure). 2b.2 **Analytic Method** *(type of reliability & rationale, method for testing)*: We did not conduct reliability testing for this measure. 2b.3 **Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*: We did not conduct reliability testing for this measure.	**2b** C☐ P☐ M☐ N☐
2c. Validity testing 2c.1 **Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure). 2c.2 **Analytic Method** *(type of validity & rationale, method for testing)*: NCQA tested the measure for face validity using a panel of stakeholders with specific expertise in measurement and child health care. This panel included representatives from key stakeholder groups, including pediatricians, family physicians, health plans, state Medicaid agencies and researchers. Experts reviewed the results of the field test and assessed whether the results were consistent with expectations, whether the measure represented quality care, and whether we were measuring the most important aspect of care in this area. This measure was deemed valid by the expert panel. In addition, this measure does not utilize administrative data sources; data recorded in the chart is considered the gold standard. 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: NA	**2c** C☐ P☐ M☐ N☐
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** No exclusions 2d.2 **Citations for Evidence:** NA 2d.3 **Data/sample** *(description of data/sample and size)*: NA 2d.4 **Analytic Method** *(type analysis & rationale)*: NA 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*: NA	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: NA 2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*: NA 2e.3 **Testing Results** *(risk model performance metrics)*: NA	**2e** C☐ P☐ M☐ N☐ NA☐

2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:** The measure assesses prevention and wellness in a general population; risk adjustment is not indicated.	
2f. Identification of Meaningful Differences in Performance 2f.1 **Data/sample from Testing or Current Use** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) 2f.2 **Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance 2f.3 **Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*: Blood Pressure Screening By Age 6 Years: Elig Population: 180 Screening Documented: 99.4 Results Documented: 99.4 Results and Proper Follow Up Documented: 92.2% By Age 13 Years: Elig Population: 179 Screening Documented: 98.9 Results Documented: 98.9 Results and Proper Follow Up Documented: 97.8 By Age 18 Years: Elig Population: 163 Screening Documented: 96.3 Results Documented: 96.3 Results and Proper Follow Up Documented: 89.6	**2f** C☐ P☐ M☐ N☐
2g. Comparability of Multiple Data Sources/Methods 2g.1 **Data/sample** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) 2g.2 **Analytic Method** *(type of analysis & rationale)*: This measure is chart review only; no other sources were identified by the expert panel; this measure does not utilize administrative data 2g.3 **Testing Results** *(e.g., correlation statistics, comparison of rankings)*: NA	**2g** C☐ P☐ M☐ N☐ NA☐
2h. Disparities in Care 2h.1 **If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: The measure is not stratified to detect disparities. 2h.2 **If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:** NA	**2h** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐ M☐ N☐

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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** Not in use but testing completed **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*)**:** This measure is not currently publicly reported. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. **3a.3 If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** This measure is not currently used in QI. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. NCQA anticipates that after we release these measures, they will become widely used, as all our measures do. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) **3a.4 Data/sample** *(description of data/sample and size)***:** NA **3a.5 Methods** *(e.g., focus group, survey, QI project)***:** NCQA vetted the measures with its expert panel. In addition, throughout the development process, NCQA vetted the measure concepts and specifications with other stakeholder groups, including the National Association of State Medicaid Directors, NCQA's Health Plan Advisory Council, NCQA's Committee on Performance Measurement, and the American Academy of Pediatrician's Quality Improvement Innovation Network. After field testing, NCQA also conducted a debrief call with field test participants. In the form of a group interview, NCQA systematically sought feedback on whether the measures were understandable, feasible, important, and had face validity. **3a.6 Results** *(qualitative and/or quantitative results and conclusions)***:** NCQA received feedback that the measure is understandable, feasible, important and valid.	**3a** C☐ P☐ M☐ N☐
3b/3c. Relation to other NQF-endorsed measures **3b.1 NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): **3b.2 Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value **3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** **5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the**	**3c** C☐ P☐ M☐ N☐ NA☐

same target population), Describe why it is a more valid or efficient way to measure quality: NA	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** **C☐** **P☐** **M☐** **N☐**
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** **C☐** **P☐** **M☐** **N☐**
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** NCQA plans to eventually specify this measure for electronic health records.	**4b** **C☐** **P☐** **M☐** **N☐**
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** **C☐** **P☐** **M☐** **N☐** **NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.** During the measure development process the Child Health MAP and measure development team worked with NCQA's certified auditors and audit department to ensure that the measure specifications were clear and auditable. The denominator, numerator and optional exclusions are concisely specified and align with our audit standards.	**4d** **C☐** **P☐** **M☐** **N☐**
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Based on field test results, we have specified the measure to assess whether screening was documented and whether use of a standardized tool was documented. Our field test results showed that these data elements are available in the medical record. In addition, our field test participants noted that many were able to program these requirements into their electronic health record systems, and several implemented	**4e** **C☐** **P☐** **M☐** **N☐**

point-of-service physician reminders for this measure. 4e.2 **Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Collecting measures from medical charts is time-consuming and can be burdensome. Adapting this measure in electronic health records may relieve some of this burden. 4e.3 **Evidence for costs:** Based on field test participant feedback and other stakeholder input. 4e.4 **Business case documentation:** NA	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** **C☐** **P☐** **M☐** **N☐**
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited ☐**
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**
CONTACT INFORMATION	
Co.1 **Measure Steward (Intellectual Property Owner)** Co.1 **Organization** National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005 Co.2 **Point of Contact** Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-	
Measure Developer If different from Measure Steward Co.3 **Organization** National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005 Co.4 **Point of Contact** Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-	
Co.5 **Submitter If different from Measure Steward POC** Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-, National Committee for Quality Assurance	
Co.6 **Additional organizations that sponsored/participated in measure development**	
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.** Child Health Measurement Advisory Panel: Jeanne Alicandro Barbara Dailey Denise Dougherty, PhD	

Ted Ganiats, MD Foster Gesten, MD Nikki Highsmith, MPA Charlie Homer, MD, MPH Jeff Kamil, MD Elizabeth Siteman Mary McIntyre, MD, MPH Virginia Moyer, MD, MPH, FAAP Lee Partridge Xavier Sevilla, MD, FAAP Michael Siegal Jessie Sullivan
Ad.2 If adapted, provide name of original measure: NA **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** **Ad.7 Month and Year of most recent revision:** **Ad.8 What is your frequency for review/update of this measure?** **Ad.9 When is the next scheduled review/update for this measure?**
Ad.10 Copyright statement/disclaimers: © 2009 by the National Committee for Quality Assurance 1100 13th Street, NW, Suite 1000 Washington, DC 20005
Ad.11 -13 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*)**:** 08/30/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1385 **NQF Project:** Child Health Quality Measures 2010

MEASURE DESCRIPTIVE INFORMATION

De.1 Measure Title: Developmental screening using a parent completed screening tool (Parent report, Children 0-5)

De.2 Brief description of measure: The measure assesses whether the parent or caregiver completed a developmental screening tool meant to identify children at-risk for developmental, behavioral and social delays. The items are age-specific and anchored to parent-completed tools (a majority of health care providers implementing the Bright Futures recommendations for standardized screening for all children utilize parent-completed tools due to their validity and feasibility). The age-specific items assess whether children 10-71 months are screened.

The items assessing developmental screening in the National Survey of Children´s Health are meant to assess whether the parent or caregiver completed a standardized developmental screening tool (for example: Parents Evaluation of Developmental Status). Developmental screening is defined as a standardized tool that assesses the child's risk for developmental, behavioral and social delays. The American Academy of Pediatrics recommends standardized screening using an approved screening tool as the best method of identifying children at risk for developmental, behavioral and/or social delays.

1.1-2 Type of Measure: Process
De.3 If included in a composite or paired with another measure, please identify composite or paired measure

De.4 National Priority Partners Priority Area: Population health
De.5 IOM Quality Domain: Effectiveness
De.6 Consumer Care Need: Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff

A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	**A** Y☐ N☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** Nationally, only 19.5% of children age 10-71 months received all of the content to indicate that their parent or caregiver had completed a standardized developmental screening instrument to identify children at-risk for developmental, behavioral, and social delays in the past 12 months. The American Academy of Pediatrics Bright Future recommendations state that all children should be screened using a standard tool (e.g. PEDS or ASQ) by age 5.	**1a** C☐ P☐ M☐ N☐

In July 2006 the American Academy of Pediatrics issued the Statement on Identifying Infants and Young Children with Developmental Disorders in the Medical Home, calling for pediatric clinicians to routinely screen children for developmental delays using standardized and validated tools. A majority of front-line health care providers who are implementing standardized developmental screening tools as part of well-child care are doing so through the use of parent-completed standardized developmental screening tools due to their feasibility and validity.

This measure has demonstrated validity and sensitivity to parent-completed tools such as the Parents Evaluation of Developmental Status and the Ages and Stages Questionnaire.

1a.4 **Citations for Evidence of High Impact:** The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1b. Opportunity for Improvement

1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** Research shows that the most reliable and valid approach to identify children at risk for delays is to implement a standardized developmental screening tool. Integral to assuring whether children are being screened in this way is the use of standardized measures to track the current level of screening and to monitor implementation efforts over time. No standardized and validated methods are available to health systems for this purpose. Some health systems examine medical charts for evidence of standardized screening of children. However, it is not known whether this data source is reliable or valid for measurement purposes due to variations in whether and how care providers document their screening activities, including whether or not completed tools are included in the chart. Early identification of developmental disorders is critical to the well-being of children and their families. Early identification should lead to further evaluation, diagnosis, and treatment.

1b.2 **Summary of data demonstrating performance gap (variation or overall poor performance) across providers:**
Children who have received all of the content to qualify as having completed a standardized developmental screen ranges across states from 10.7% of children in Pennsylvania to 47% of children in North Carolina.

1b.3 **Citations for data on performance gap:**
The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With

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Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

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Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1b.4 Summary of Data on disparities by population group:
Children who currently have public insurance are more likely (23.6%) to have received all of the content to qualify as having completed a standardized developmental screen than children who currently have private insurance (17.8%) or who are currently uninsured (14.8%).

1b.5 Citations for data on Disparities:

The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

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Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1c. Outcome or Evidence to Support Measure Focus

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1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired*

outcome. For outcomes, describe why it is relevant to the target population): It is recommended that developmental surveillance be incorporated at every well-child preventive care visit. Any concerns raised during surveillance should be promptly addressed with standardized developmental screening tests. In addition, screening tests should be administered regularly at the 9-, 18-, and 30-month visits. Surveillance can be useful for determining appropriate referrals, providing patient education and family-centered care in support of healthy development, and monitoring the effects of developmental health promotion through early intervention and therapy. **1c.2-3. Type of Evidence:** Other Population based research **1c.4 Summary of Evidence** (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*): **1c.5 Rating of strength/quality of evidence** (*also provide narrative description of the rating and by whom*): **1c.6 Method for rating evidence:** **1c.7 Summary of Controversy/Contradictory Evidence:** **1c.8 Citations for Evidence** (*other than guidelines*): **1c.9 Quote the Specific guideline recommendation** (*including guideline number and/or page number*): **1c.10 Clinical Practice Guideline Citation:** The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420. **1c.11 National Guideline Clearinghouse or other URL:** **1c.12 Rating of strength of recommendation** (*also provide narrative description of the rating and by whom*): **1c.13 Method for rating strength of recommendation** (*If different from* USPSTF system*, also describe rating and how it relates to USPSTF)*: **1c.14 Rationale for using this guideline over others:**	**M☐** **N☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	Eval Rating

2a. MEASURE SPECIFICATIONS	
S.1 Do you have a web page where current detailed measure specifications can be obtained? **S.2 If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*)**:** Percentage of children whose parents completed a standardized developmental screening tool to identify children at risk for developmental, behavioral, and social delays at a health care visit during the previous 12 months **2a.2 Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*)**:** Encounter or point in time. **2a.3 Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*)**:** The three items begin with a stem question asking whether or not the parent/guardian ever received a questionnaire asking about concerns with their child's development, communication or social behaviors (K6Q12) at a health care visit. Two age-specific questions follow: Parents of children age 10-23 months receive two questions to ascertain whether the questionnaire they received contained questions about concerns around child's speech/sounds (K6Q13A) and his/her interaction with respondent and others (K6Q13B). Parents of children age 24-71 months receive two questions (to ascertain whether the questionnaire they received contained questions about concerns around words/phrases that the child uses and understands (K6Q14A) and how the child gets along with respondent and others (K6Q14B). Parents must answer all three questions they receive in the affirmative to be coded as "received standardized developmental screening."	
2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*)**:** Children age 10 months - 5 years (71 months) with a health care visit in the past 12 months (see 2a.8 below for further definition of "health care visit") **2a.5 Target population gender:** Female, Male **2a.6 Target population age range:** Children age 10 months - 5 years (71 months) **2a.7 Denominator Time Window** (*The time period in which cases are eligible for inclusion in the denominator*)**:** Denominator window is a fixed point in time. **2a.8 Denominator Details** (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*)**:** Children age 10-71 months with at least one health care visit in the past 12 months. Health care visit is defined as 1 or more preventive health care visits and/or 1 or more preventive dental care visits and/or a visit with a mental health professional and/or a visit with a specialist.	
2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population*)**:** Child excluded from denominator if age is less than 10 months or more than 5 years and did not have at least one health care visit in the past 12 months **2a.10 Denominator Exclusion Details** (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*)**:** Children less than age 10 months or older than 71 months are excluded from the denominator. In addition, children in the target denominator age range of 10-71 months are excluded from the denominator if they did not have at least one "health care visit" in the past 12 months. Health care visit is defined as 1 or more	**2a-specs** **C**☐ **P**☐ **M**☐ **N**☐

preventive health care visits and/or 1 or more preventive dental care visits and/or a visit with a mental health professional and/or a visit with a specialist.

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
To receive numerator of parent did complete a standardized developmental screening tool:
Children age 10-71 months:
-Parent/guardian received a questionnaire about concerns with their child's development, communication or social behaviors in the past 12 months (K6Q12= Yes)
AND
Children age 10-23 months:
-Questionnaire contained questions about concerns around how child talks or makes speech sounds (K6Q13A= Yes)
AND
-Questionnaire contained questions about concerns around how child interacts with others (K6Q13B= Yes)
AND
Children age 24-71 months:
-Questionnaire contained questions about concerns around words and phrases child uses and understands (K6Q14A= Yes)
AND
-Questionnaire contained questions about concerns around how child behaves and gets along with others (K6Q14B= Yes)

To receive numerator of parent did NOT complete the standardized developmental and behavioral screening, parent must respond "No" to one or more of the above items.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**

2a.23 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)*:
Best guideline to follow is the survey methodology used in the 2007 National Survey of Children´s Health.

The goal of the NSCH sample design was to generate samples representative of populations of children within each state. An additional goal of the NSCH was to obtain state-specific sample sizes that were sufficiently large to permit reasonably precise estimates of the health characteristics of children in each state.
To achieve these goals, state samples were designed to obtain a minimum of 1,700 completed interviews. The number of children to be selected in each National Immunization Survey (NIS) estimation area was determined by allocating the total of 1,700 children in the state to each National Immunization Survey (NIS) estimation area within the state in proportion to the total estimated number of households with children in the NIS estimation area. Given this allocation, the number of households that needed to be screened in each NIS estimation area was calculated using the expected proportion of households with children under 18 years of age in the area. Then, the number of telephone numbers that needed to be called was computed using the expected working residential number rate, adjusted for expected nonresponse.

A total of 91,642 interviews were completed from April 2007 to July 2008 for the 2007 National Survey of Children´s Health. A random-digit-dialed sample of households with children less than 18 years of age was

selected from each of the 50 states and the District of Columbia. One child was randomly selected from all children in each identified household to be the subject of the survey. The respondent was a parent or guardian who knew about the child's health and health care.

2a.24 **Data Source (***Check the source(s) for which the measure is specified and tested)*
Survey: Patient

2a.25 **Data source/data collection instrument (***Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
2007 National Survey of Children's Health

2a.26-28 **Data source/data collection instrument reference web page URL or attachment:** URL
ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/slaits/nsch07/1a_Survey_Instrument_English/NSCH_Questionnaire_052109.pdf

2a.29-31 **Data dictionary/code table web page URL or attachment:** URL
http://nschdata.org/Viewdocument.aspx?item=519

2a.32-35 **Level of Measurement/Analysis** (*Check the level(s) for which the measure is specified and tested)*
Population: national, Population: regional/network, Population: states

2a.36-37 **Care Settings (***Check the setting(s) for which the measure is specified and tested)*
Other applies to any care setting in which child receives care. Can stratify by usual source of care.

2a.38-41 **Clinical Services** (*Healthcare services being measured, check all that apply*)
Other Patient experience

TESTING/ANALYSIS

2b. Reliability testing

2b.1 **Data/sample** *(description of data/sample and size)***:** The Child and Adolescent Health Measurement Initiative (CAHMI), with funding from the Commonwealth Fund and in conjunction with the Maternal and Child Health Bureau and the National Center for Health Statistics, led the development and testing of the items. The findings from the cognitive testing yielded this 3-item, stand-alone measure that is also part of the Promoting Healthy Development Survey© (PHDS) or can be administered as part of an existing survey. Items were tested on N=23 as part of the ABCD screening academy. Additional information not found in this section can be provided upon request.

Additionally, qualitative testing of the most recent version of the standardized developmental and behavioral screening items (as part of the 2007 National Survey of Children´s Health) was conducted by the National Center for Health Statistics. They conducted cognitive interviews with the 2007 NSCH Computer-Assisted Telephone Interview (CATI) to make sure the entire survey instrument was functioning properly. N=640 interviews were completed over 3 days in December 2006. The questionnaire was then revised and finalized based on feedback from participants in these interviews.

2b.2 **Analytic Method** *(type of reliability & rationale, method for testing)***:**
Cognitive testing was conducted to test reliability and interpretability of questions across population.

2b.3 **Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)***:**
For testing of the standardized developmental screening measure as part of the PHDS: overall, N=23 interviews were conducted with parents whose children received care in sites that use an standardized developmental screening tool at specific visits. The interviews were conducted with N=15 parents who completed a standardized developmental screening tool (9 completed the ASQ, 6 completed the PEDS) and N=8 parents who did not complete a tool. Participating parents reported about care provided to children ages 3 months old – 36 months old. See links below for more information:

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Standardized Developmental Screening (SDBS) - Users Tips Sheet: How to Administer and Score the Items http://cahmi.org/ViewDocument.aspx?DocumentID=69 Standardized Developmental Screening (SDBS) - Development: How the Items Were Developed and Tested http://cahmi.org/ViewDocument.aspx?DocumentID=70 Promoting Healthy Development Survey (PHDS) Implementation Guidelines:http://www.cmwf.org/General/General_show.htm?doc_id=425143 Measuring and Evaluating Developmental Services: Strategies and Lessons from the ABCD II Consortium States. Colleen Peck Reuland and Christina Bethell. NASHP Publication #2006HH-CW16. Available at http://www.nashp.org/Files/lessons_from_ABCDII.pdf For testing of the standardized developmental screening measure as part of the 2007 NSCH (N=640), no comments or feedback specific to the measure was given.	
2c. Validity testing 2c.1 **Data/sample** *(description of data/sample and size)*: In-depth cognitive interviews with 23 parents of young children who received care in sites that use a standardized developmental screening tool at specific visits. 2c.2 **Analytic Method** *(type of validity & rationale, method for testing)*: The standardized developmental screening items were validated through in-depth cognitive interviews with parents of young children who were served by pediatric practices known to systematically use standardized, parent-completed developmental and behavioral screening tools and with parents whose child received care in an office known to not use standardized screening tools (N=23). 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: This testing resulted in a zero false negative rate (e.g. all responses indicating "no standardized developmental screening tool" did not, in fact, receive standardized developmental screening) and a small proportion of false positives (e.g. some screenings were reported that did not take place). As such, any bias in these standardized developmental screening tool prevalence findings are expected to be in the direction of overestimating prevalence of screening using standardized, parent-completed tools. This is normally the preferred direction of bias for any performance assessment measure. More information at: Child and Adolescent Health Measurement Initiative (CAHMI). Standardized Developmental and Behavioral Screening (SDBS): Measure of SDBS Using Surveys of Parents. Development, Survey Items and User Tips and Guidelines. Accessed on January 28, 2010 from: http://cahmi.org/ViewDocument.aspx?DocumentID=70.	**2c** **C**☐ **P**☐ **M**☐ **N**☐
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** 2d.2 **Citations for Evidence:** 2d.3 **Data/sample** *(description of data/sample and size)*: 2d.4 **Analytic Method** *(type analysis & rationale)*: 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:	**2d** **C**☐ **P**☐ **M**☐ **N**☐ **NA**☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures	**2e** **C**☐

2e.1 Data/sample *(description of data/sample and size)*: **2e.2 Analytic Method** *(type of risk adjustment, analysis, & rationale)*: **2e.3 Testing Results** *(risk model performance metrics)*: **2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:**	**P☐ M☐ N☐ NA☐**
2f. Identification of Meaningful Differences in Performance **2f.1 Data/sample from Testing or Current Use** *(description of data/sample and size)*: **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	**2f C☐ P☐ M☐ N☐**
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g C☐ P☐ M☐ N☐ NA☐**
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	**2h C☐ P☐ M☐ N☐ NA☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** **C☐ P☐ M☐ N☐**
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** In use **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly*	**3a C☐ P☐ M☐ N☐**

reported, state the plans to achieve public reporting within 3 years): U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The Health and Well-Being of Children: A Portrait of States and the Nation 2007. Chartbook based on data from the 2007 National Survey of Children's Health. 3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years*): Copper, Janice L & Vick, Jessica. Promoting Social-Emotional Wellbeing in Early Intervention Services: A Fifty-State View. National Center for Children in Poverty, September 2009. Hagan JF, Shaw, JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, 3rd Edition. Elk Grove Village, IL: American Academy of Pediatrics. Earls, ME, Andrews JE, Hay, SS. A Longitudinal Study of Developmental and Behavioral Screening and Referral in North Carolina's Assuring Better Child Health and Development Participating Practices. Clinical Pediatrics. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)*: Focus groups were held with numerous stakeholder groups—family advocates, clinicians, Title V leaders, researchers—to obtain feedback on report formats. The Child and Adolescent Health Measurement Initiative led the focus groups and developed reports in accordance with a general consumer information framework. Additional focus groups were held when preparing data and reports for display on the Data Resource Center website. The Data Resource Center executive committee also reviewed report formats for interpretability and applicability. 3a.5 **Methods** *(e.g., focus group, survey, QI project)*: Focus groups 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)*:	
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** 5.1 **If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	**3c** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐

	M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Survey	**4a** **C☐** **P☐** **M☐** **N☐**
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) Yes **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.**	**4b** **C☐** **P☐** **M☐** **N☐**
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** **C☐** **P☐** **M☐** **N☐** **NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d** **C☐** **P☐** **M☐** **N☐**
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** **4e.3 Evidence for costs:** **4e.4 Business case documentation:**	**4e** **C☐** **P☐** **M☐** **N☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** **C☐** **P☐**

	M☐ N☐
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	Time-limited ☐
Steering Committee: Do you recommend for endorsement? **Comments:**	Y☐ N☐ A☐
CONTACT INFORMATION	
Co.1 **Measure Steward (Intellectual Property Owner)** Co.1 **Organization** Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau, Oregon Health & Science University, 707 SW Gaines Street, Portland, Oregon, 97239 Co.2 **Point of Contact** Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-	
Measure Developer If different from Measure Steward Co.3 **Organization** Maternal and Child Health Bureau, Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857 Co.4 **Point of Contact** Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-	
Co.5 **Submitter If different from Measure Steward POC** Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-, Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau	
Co.6 **Additional organizations that sponsored/participated in measure development**	
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.**	
Ad.2 **If adapted, provide name of original measure:** Ad.3-5 **If adapted, provide original specifications URL or attachment**	
Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 **Year the measure was first released:** 2007 Ad.7 **Month and Year of most recent revision:** 04, 2007 Ad.8 **What is your frequency for review/update of this measure?** Updated every 4 years when a new National Survey of Children's Health is developed Ad.9 **When is the next scheduled review/update for this measure?** 01, 2011	
Ad.10 **Copyright statement/disclaimers:** CAHMI- The Child and Adolescent Health Measurement Initiative.	
Ad.11 -13 **Additional Information web page URL or attachment:**	
Date of Submission (*MM/DD/YY*)**:** 10/14/2010	

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1343 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 Measure Title: Children Whose Family Members had to Cut Back or Stop Working due to Child´s Health
De.2 Brief description of measure: Measure to assess whether a family member had to cut back or stop working due to child´s condition.
1.1-2 Type of Measure: Outcome **De.3 If included in a composite or paired with another measure, please identify composite or paired measure**
De.4 National Priority Partners Priority Area: Population health **De.5 IOM Quality Domain:** Efficiency **De.6 Consumer Care Need:** Living with illness

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	**NQF Staff**
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* **A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes **A.2 Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure **A.3 Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission **A.4 Measure Steward Agreement attached:**	**A** **Y**☐ **N**☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least	**B** **Y**☐

every 3 years. Yes, information provided in contact section	N☐
C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** A family member cutting back or stopping work due to a child´s condition affects a child´s insurance status, household income, and financial hardship on the family. CSHCN whose parents do not work full-time reduces the likelihood that the child is covered by employer-sponsored health insurance, influencing the access to and rate of service use as well as quality of care. A reduction in hours reduces the household income, which can cause financial hardship on the family to pay for housing, food and out of pocket costs for child´s health care. 1a.4 **Citations for Evidence of High Impact:** Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org Heck, K. E., & Makuc, D. M. (2000). Parental employment and health insurance coverage among school-aged children with special health care needs. American Journal of Public Health, 90(12), 1856-1860.	**1a** C☐ P☐ M☐ N☐
1b. Opportunity for Improvement 1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** Health care providers, public health professionals and population-based health analysts can all benefit from knowing the factors that influence a family member´s decision to cut back or stop working due to a child´s condition. Due to	**1b** C☐ P☐ M☐ N☐

the impact of employment decision on child´s insurance status, household income, and financial hardship on the family, a measure in changes to employment status assists in understanding the impact of CSHCN on the family, as well as across populations or demographic groups.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Nationally, 23.8% of CSHCN had conditions which caused family members to cut back or stop working.

1b.3 Citations for data on performance gap:
Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org

1b.4 Summary of Data on disparities by population group:
Children living in a lower income household (0-99% FPL; 32.9%) are more likely to have family members who cut back or stopped working due to child´s condition than children living in a higher income household (400% FPL or more; 16.9%).

Uninsured children are the most likely to have family members cut back or stop working (34.5%), followed by publicly insured children (32.1%) and privately insured children (17.5%).

Children who were consistently insured over the past year were less likely to have family members cut back or stop working (22.6%) compared to children with inconsistent insurance (36.0%).

43.7% of children living in Spanish speaking households had family members cut back or stop working, compared to 27.2% of Hispanic children living in English speaking households and 22.5% of non-Hispanic children.

CSHCN with mental health care needs are more likely to have family members cut back or stop working than parents of CSHCN without mental health care needs (30.0% vs. 12.7%)

CSHCN whose conditions cause greater functional limitations which affect his/her ability to do things, the greater rate of a family member having to cut back or stop work (46.8% vs 16.5%).

CSHCN with single parent caretakers are more than 15 times more likely to stop working compared with children in two-parent families.

1b.5 Citations for data on Disparities:
Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org

Thyen, U., Kuhlthau, K., & Perrin, J. M. (1999). Employment, child care, and mental health of mothers caring for children assisted by technology. Pediatrics, 103(6 Pt 1), 1235-1242.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** Children whose family members had to cut back or stop working are more likely to pay $1000 or more in Out of Pocket medical expenses a year than families of CSHCN that did not cut back or stop working (31.6% vs. 16.4%)

CSHCN with at least 1 unmet need for specific health services are more likely to have families that cut back or stop working than CSHCN with no unmet need for specific health services (28.0% vs. 12.3%).

CSHCN with a medical home reduces the risk of a parent cutting hours decreases by 51%. The relative risk of choosing to stop working rather than not change hours decreases by an estimated 64% (Derigne, 2010).

1c.2-3. Type of Evidence: Other Population-Based Research

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that*

1c
C ☐
P ☐
M ☐
N ☐

healthcare services/care processes influence the outcome): Outcome is relevant to the target population for purposes of quality improvement. Higher quality of health care services, such as care coordination and community-based services decreases the impact of a child´s condition on the family, including cutting back or stop working to care for child. 1c.5 **Rating of strength/quality of evidence** (*also provide narrative description of the rating and by whom*)**:** 1c.6 **Method for rating evidence:** 1c.7 **Summary of Controversy/Contradictory Evidence:** 1c.8 **Citations for Evidence** (*other than guidelines*)**:** 1c.9 **Quote the Specific guideline recommendation** (*including guideline number and/or page number*)**:** 1c.10 **Clinical Practice Guideline Citation:** 1c.11 **National Guideline Clearinghouse or other URL:** 1c.12 **Rating of strength of recommendation** (*also provide narrative description of the rating and by whom*)**:** 1c.13 **Method for rating strength of recommendation** (*If different from* USPSTF system*, also describe rating and how it relates to USPSTF)*: 1c.14 **Rationale for using this guideline over others:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. 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)	Eval Rating
2a. MEASURE SPECIFICATIONS	
S.1 **Do you have a web page where current detailed measure specifications can be obtained?** S.2 **If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 **Numerator Statement** (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*)**:** Percentage of children whose family members had to cut back or stop working due to the child´s health. 2a.2 **Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*)**:** Encounter or point in time. 2a.3 **Numerator Details** (*All information required to collect/calculate the numerator, including all codes,*	**2a-specs** **C☐** **P☐** **M☐** **N☐**

logic, and definitions):
If child´s family members had to stop working (C9Q10) or cut down on the hours worked (C9Q06) due to child´s health

2a.4 **Denominator Statement** (*Brief, text description of the denominator - target population being measured*):
Children with Special Health Care Needs (CSHCN) age 0-17 years

2a.5 **Target population gender:** Female, Male
2a.6 **Target population age range:** Children with Special Health Care Needs (CSHCN) age 0-17 years

2a.7 **Denominator Time Window** (*The time period in which cases are eligible for inclusion in the denominator*):
Denominator window is a fixed point in time anchored to "current".

2a.8 **Denominator Details** (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*):
Children with Special Health Care Needs (CSHCN) age 0-17 years

2a.9 **Denominator Exclusions** (*Brief text description of exclusions from the target population*): Children age 0-17 years who are not identified as having special health care needs are excluded.

2a.10 **Denominator Exclusion Details** (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*):
If child is older than 17 years of age, excluded from denominator.
CSHCN are defined by the standardized and validated CSHCN Screener. The screener is administered at the beginning of the survey and all remaining items in the survey are only asked regarding a child with special health care needs.

2a.11 **Stratification Details/Variables** (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions*):
No stratification is required.

When the Family Members had to Cut Back or Stop Working measure was administered in its most recent form, in the 2005/06 National Survey of Children with Special Health Care Needs, the survey included a number of child demographic variables that allow for stratification of the findings by possible vulnerability:
- Age
- Gender
- Geographic location- State, HRSA Region, National level Rural Urban Commuter Areas (RUCA)
- Race/ethnicity
- Health insurance- type, consistency
- Primary household language
- Household income
- Type of Special Health Care Need

2a.12-13 **Risk Adjustment Type:** No risk adjustment necessary

2a.14 **Risk Adjustment Methodology/Variables** (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method*):

2a.15-17 **Detailed risk model available Web page URL or attachment:**

2a.18-19 **Type of Score:** Rate/proportion
2a.20 **Interpretation of Score:** Better quality = Lower score
2a.21 **Calculation Algorithm** (*Describe the calculation of the measure as a flowchart or series of steps*):
To receive numerator of family members having to cut back or stop working due to child´s health, either:
-A family member stopped working due to child´s health (C9Q10= Yes), OR
-A family member cut back on the number of hours worked due to child´s health (C9Q06= Yes).

2a.22 **Describe the method for discriminating performance** *(e.g., significance testing)*:

2a.23 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)*:
Best guideline to follow is the survey methodology used in the 2005/2006 National Survey of Children with Special Health Care Needs (NS-CSHCN). The NS-CSHCN first uses the sampling frame generated in the process of data collection for the National Immunization Survey (NIS). Once it is determined whether a child is present in the household and whether or not they are age eligible for the NIS, it is then determined whether the child may also be eligible for the NS-CSHCN.

The goal of the NS-CSHCN sample design was to generate samples representative of populations of children with special health care needs within each state. An additional goal of the NS-CSHCN was to obtain state-specific sample sizes that were sufficiently large to permit reasonably precise estimates of the health characteristics of CSHCN in each state.

To achieve these goals, state samples were designed to obtain a minimum of 750 completed interviews. The number of children to be selected in each NIS estimation area was determined by allocating the total of 750 CSHCN in the state to each NIS estimation area within the state in proportion to the total estimated number of households with children in the NIS estimation area. Given this allocation, the number of households that needed to be screened in each NIS estimation area was calculated using the expected proportion of households with children under 18 years of age in the area. Then, the number of telephone numbers that needed to be called was computed using the expected working residential number rate, adjusted for expected nonresponse.

A total of 40,723 interviews were completed from April 2005 to February 2007 for the 2005/2006 National Survey of Children with Special Health Care Needs. A random-digit-dialed sample of households with children less than 18 years of age was selected from each of the 50 states and the District of Columbia. All children residing in the household under 18 years of age were screened for special health care needs using the validated CSHCN Screener. If more than one child in the household was identified with special needs, only one child with special health care needs was randomly selected to be the subject of the survey. The respondent was a parent or guardian who knew about the child's health and health care.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Survey: Patient

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
2005/06 National Survey of Children with Special Health Care Needs

2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL
http://www.cdc.gov/nchs/data/slaits/NSCSHCNIIEnglishQuest.pdf

2a.29-31 Data dictionary/code table web page URL or attachment: URL
http://www.cshcndata.org/ViewDocument.aspx?item=260

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Population: national, Population: regional/network, Population: states

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Other Applies to any care setting in which child receives care. Can stratify by usual source of care.

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)
Other Patient Experience

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)*:

2b
C☐
P☐

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*: Cognitive testing was conducted to test reliability and interpretability of questions across population. **2b.3 Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*: The Maternal and Child Health Bureau leads the development of the NSCH and NS-CSHCN survey and indicators, in collaboration with the National Center for Health Statistics (NCHS) and a national technical expert panel. The expert panel includes representatives from other federal agencies, state Title V leaders, family organizations, and child health researchers, and experts in all fields related to the surveys (adolescent health, family and neighborhoods, early childhood and development etc.). Previously validated questions and scales are used when available. Extensive literature reviewing and expert reviewing of items is conducted for all aspects of the survey. Respondents' cognitive understanding of the survey questions is assessed during the pretest phase and revisions made as required. All final data components are verified by NCHS and DRC/CAHMI staff prior to public release. Face validity is conducted in comparing results with prior years of the survey and/or results from other implementations of items. No specific reliability results are available for this measure. Please contact the CAHMI if quantitative measures are needed.	M☐ N☐
2c. Validity testing **2c.1 Data/sample** *(description of data/sample and size)*: **2c.2 Analytic Method** *(type of validity & rationale, method for testing)*: Cognitive testing was conducted with parents of children ages 0-17 years (interviews conducted over the phone with residential households). **2c.3 Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: Please see the references section for peer-reviewed articles which have used these items. Peer-reviewed papers generally undertake their own validity testing in order to meet strict peer review standards. See also Reliability Testing Results above.	**2c** C☐ P☐ M☐ N☐
2d. Exclusions Justified **2d.1 Summary of Evidence supporting exclusion(s):** **2d.2 Citations for Evidence:** **2d.3 Data/sample** *(description of data/sample and size)*: **2d.4 Analytic Method** *(type analysis & rationale)*: **2d.5 Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures **2e.1 Data/sample** *(description of data/sample and size)*: **2e.2 Analytic Method** *(type of risk adjustment, analysis, & rationale)*: **2e.3 Testing Results** *(risk model performance metrics)*: **2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:**	**2e** C☐ P☐ M☐ N☐ NA☐

2f. Identification of Meaningful Differences in Performance **2f.1 Data/sample from Testing or Current Use** *(description of data/sample and size)*: **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	**2f** C☐ P☐ M☐ N☐
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g** C☐ P☐ M☐ N☐ NA☐
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	**2h** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐ M☐ N☐
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** In use **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2005-2006. Rockville, Maryland: U.S. Department of Health and Human Services, 2008. http://mchb.hrsa.gov/cshcn05/ **3a.3 If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** The Data Resource Center websites have been accessed more than 18 million times since 2006. Thousands of state and national researchers, MCH providers and analysts use the data to report valid children's health	**3a** C☐ P☐ M☐ N☐

data. Healthy People 2010 uses items from the national surveys, and several more are slated to be added into Healthy People 2020. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) **3a.4 Data/sample** *(description of data/sample and size)*: Focus groups were held with numerous stakeholder groups—family advocates, clinicians, Title V leaders, researchers—to obtain feedback on report formats. The Child and Adolescent Health Measurement Initiative led the focus groups and developed reports in accordance with a general consumer information framework. Additional focus groups were held when preparing data and reports for display on the Data Resource Center website. The Data Resource Center executive committee also reviewed report formats for interpretability and applicability. **3a.5 Methods** *(e.g., focus group, survey, QI project)*: Focus groups **3a.6 Results** *(qualitative and/or quantitative results and conclusions)*:	
3b/3c. Relation to other NQF-endorsed measures **3b.1 NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): **3b.2 Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value **3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** **5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	**3c** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐ M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Survey	**4a** C☐ P☐ M☐ N☐
4b. Electronic Sources	**4b**

4b.1 Are all the data elements available electronically? (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) Yes **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.**	C☐ P☐ M☐ N☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** C☐ P☐ M☐ N☐ NA☐
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d** C☐ P☐ M☐ N☐
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Items are well understood and easy to implement. Items yield very low levels of missing values, don't know or refused answers. **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Item is public domain and there is no cost associated with its use. **4e.3 Evidence for costs:** **4e.4 Business case documentation:**	**4e** C☐ P☐ M☐ N☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** C☐ P☐ M☐ N☐
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited** ☐
Steering Committee: Do you recommend for endorsement? **Comments:**	Y☐ N☐ A☐
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner)	

Co.1 **Organization**
Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau, Oregon Health & Science University, 707 SW Gaines Street, Portland, Oregon, 97239

Co.2 **Point of Contact**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-

Measure Developer If different from Measure Steward
Co.3 **Organization**
Maternal and Child Health Bureau, Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857

Co.4 **Point of Contact**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-

Co.5 **Submitter If different from Measure Steward POC**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-, Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau

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

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 Maternal and Child Health Bureau convenes a Technical Expert Panel (TEP) comprised of dozens of health services researchers, survey methodology experts, and clinical health experts on children´s health to develop items for the National Survey of Children´s Health. In addition, members of the National Center for Health Statistics are included in item construction and measure development. The TEP participates in all aspects of measure development.

Ad.2 **If adapted, provide name of original measure:**
Ad.3-5 **If adapted, provide original specifications URL or attachment**

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.6 **Year the measure was first released:** 2005
Ad.7 **Month and Year of most recent revision:** 01, 2009
Ad.8 **What is your frequency for review/update of this measure?** Updated every 4 years when a new NS-CSHCN is developed
Ad.9 **When is the next scheduled review/update for this measure?** 01, 2013

Ad.10 **Copyright statement/disclaimers:**

Ad.11 -13 **Additional Information web page URL or attachment:**

Date of Submission (*MM/DD/YY*)**:** 08/30/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1340 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Children with Special Health Care Needs (CSHCN) who Receive Services Needed for Transition to Adult Health Care
De.2 **Brief description of measure:** Whether children with special health care needs (CSHCN) ages 12-17 have doctors who usually/always encourage increasing responsibility for self-care AND (when needed) have discussed transitioning to adult health care, changing health care needs, and how to maintain insurance coverage
1.1-2 **Type of Measure:** Outcome De.3 **If included in a composite or paired with another measure, please identify composite or paired measure**
De.4 **National Priority Partners Priority Area:** Population health De.5 **IOM Quality Domain**: Patient-centered De.6 **Consumer Care Need:** Living with illness

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	A Y☐ N☐

B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** According to the MCHB, all youth with special health care needs should receive the services necessary to make appropriate transitions to adult health care, work and independence. Youth with Special Health Care Needs (YSHCN) who transition without specific transition services are more likely to have poor outcomes compared to their peers, including insurance inconsistency, higher rates of hospitalization and advanced care, and not achieving adult social roles. Two-thirds of CSHCN experience at least one adverse transition events: (1) do not have a usual source of care, (2) unmet need for health care, (3) delay in care the last 6 months, (4) uninsured or inconsistency in insurance coverage. Therefore, this is a critical issue to address through Transition to Adulthood Services to help CSHCN successfully transfer into young adulthood. 1a.4 **Citations for Evidence of High Impact:** Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org	**1a** C☐ P☐ M☐ N☐

Salkever D. Activity status, life satisfaction and perceived productivity for young adults with developmental disabilities. Journal of Rehabilitation. 2000;66(3):4-13.

Van Naarden Braun K, Yeargin-Allsop M, Lollar D. A multidimensional approach to the transition of children with developmental disabilities into young adulthood: The acquisition of adult social roles. Disability and Rehabilitation 2006; 28(15): 915-926.

Lotstein DS, Inkelas M, Hays RD, Halfon N, Brook R. Access to care for youth with special health care needs in the transition to adulthood. Journal of Adolescent Health. 2008, 43(1):23-9.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: Health care providers, public health professionals and population-based health analysts can all benefit from knowing whether or not children are receiving quality care. The measure is comprised of three components: discussion about change in health care needs, discussion of continuity of insurance coverage, and discussion about self-care responsibility. The measure of transition services allows the benefit of comparing care quality across populations or demographic groups.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Nationally, only 41.2% of CSHCN age 12-17 years received guidance on transition to adult health care services.

1b.3 Citations for data on performance gap:
Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org

1b.4 Summary of Data on disparities by population group:
Children living in a lower income household (0-199% FPL; 29.6%) are less likely to receive Transition to Adulthood Services than children living in a higher income household (400% FPL or more; 53.7%).

Uninsured children are the least likely to receive Transition to Adulthood Services (18.2%), followed by publicly insured children (27.5%) and privately insured children (49.1%).

Children whose condition is controlled by Prescription Medication only are more likely to receive transition services (49.9%), followed by Prescription Medication and Elevated Service Use (42.0%), Elevated Service Use only (31.6%), and Functional Limitations (29.9%).

Children with a strong parent-provider partnership were over 5 times more likely to receive transition services compared to those without (OR: 5.07).

1b.5 Citations for data on Disparities:
Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org

Knapp CA, Madden VL, Marcu MI. Factors that Affect Parent Perceptions of Provider-Family Partnership for Children with Special Health Care Needs. Maternal & Child Health Journal, 2010, 14:742–750.

1b
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1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** The Transition to Adulthood Services measure evaluates the involvement of health care provider in preparing CSHCN in making informed decisions. By initiating discussion about youth´s change in health care needs, insurance status, and responsibility for self-care, the health care provider providing the youth with important information to make a successful transition.

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1c.2-3. Type of Evidence: Other Population Based Research **1c.4 Summary of Evidence** (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:** CSHCN who have a usual source of care were more likely to receive transition to adulthood services, including counseling on future health needs (47.4 vs. 33.6%) and self-care responsibility (79.3 vs. 64.4%). Children who received Family-Centered Care were more likely to discuss future health needs with their health care provider (56.3 vs. 39.6%) and self-care responsibility (91.2 vs. 70.3%). Outcomes are relevant to the target population for purposes of quality improvement. Measurement and receipt of high quality care can only be strengthened with expansion of evidence based quality indicators. All items included in the measure are report of patient experience with healthcare services. Duke, N. & Scal, P. Adult Care Transitioning for Adolescents with Special Health Care Needs: A Pivotal Role for Family Centered Care. Maternal & Child Health Journal, 2010. **1c.5 Rating of strength/quality of evidence** (*also provide narrative description of the rating and by whom*)**:** **1c.6 Method for rating evidence:** **1c.7 Summary of Controversy/Contradictory Evidence:** **1c.8 Citations for Evidence** (*other than guidelines*)**:** **1c.9 Quote the Specific guideline recommendation** (*including guideline number and/or page number*)**:** **1c.10 Clinical Practice Guideline Citation:** **1c.11 National Guideline Clearinghouse or other URL:** **1c.12 Rating of strength of recommendation** (*also provide narrative description of the rating and by whom*)**:** **1c.13 Method for rating strength of recommendation** (*If different from* USPSTF system, *also describe rating and how it relates to USPSTF*)**:** **1c.14 Rationale for using this guideline over others:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	Eval Rating
2a. MEASURE SPECIFICATIONS	

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*)**:**
Percentage of youth with special health care needs who receive services needed for transition to adult health care services

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator*)**:**
Encounter or point in time.

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*)**:**
For a child to be included in the numerator of receiving services needed to transition to adulthood, criteria from the following must be met:
-Child must qualify as having one or more special health care needs
-Doctors usually/always encourage increasing responsibility for self-care (C6Q08)
-If child's doctor only treats children, then doctor had conversation with child about eventually seeing other health care providers who treat adults (C6Q0A_B), if needed
-Doctor discussed changing health care needs as youth becomes adult (C6Q0A), if needed
-Doctor discussed insurance coverage as youth becomes adult (C6Q0A_E), if needed

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*)**:**
Children with special health care needs (CSHCN) age 12-17 years

2a.5 Target population gender: Female, Male
2a.6 Target population age range: Children with Special Health Care Needs age 12-17 years

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator*)**:**
Denominator window is open-ended.

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*)**:**
Children with special health care needs (CSHCN) age 12-17 years

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population*)**:** Excluded from denominator if child does not fall in target population age range of 12-17 years and/or if child does not have one or more special health care needs (non-CSHCN).

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*)**:**
If child is older than 17 years of age, excluded from denominator.
If child is younger than 12 years, excluded from denominator.
CSHCN are defined by the standardized and validated CSHCN Screener. The screener is administered at the beginning of the survey and all remaining items in the survey are only asked regarding a child with special health care needs.

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions*)**:**
No stratification is required.

When the Transition to Adulthod measure was administered in its most recent form, in the 2005/06 National Survey of Children with Special Health Care Needs, the survey included a number of child demographic variables that allow for stratification of the findings by possible vulnerability:
• Age

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- Gender
- Geographic location- State, HRSA Region, National level Rural Urban Commuter Areas (RUCA)
- Race/ethnicity
- Health insurance- type, consistency
- Primary household language
- Household income
- Type of Special Health Care Need

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
To receive numerator of child receiving services needed to transition to adulthood, youth must meet all 4 criteria:
-If child's doctor only treats children (C6Q07=1), then doctor had conversation with child about eventually seeing other health care providers who treat adults (C6Q0A_B=0), or the discussion would not have been helpful (C6Q0A_C=0).
-Doctor discussed changing health care needs as youth becomes adult (C6Q0A=1), or the discussion would not have been helpful (C6Q0A_D=0)
-Doctor discussed insurance coverage as youth becomes adult (C6Q0A_E=1), or the discussion would not have been helpful (C6Q0A_F)
-Doctor usually or always encourage youth to engage in appropriate self-care, such as taking medications, understanding his/her diagnosis, or following medical advice (C6Q08=3 or 4)

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**

2a.23 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)*:
Best guideline to follow is the survey methodology used in the 2005/2006 National Survey of Children with Special Health Care Needs (NS-CSHCN). The NS-CSHCN first uses the sampling frame generated in the process of data collection for the National Immunization Survey (NIS). Once it is determined whether a child is present in the household and whether or not they are age eligible for the NIS, it is then determined whether the child may also be eligible for the NS-CSHCN.

The goal of the NS-CSHCN sample design was to generate samples representative of populations of children with special health care needs within each state. An additional goal of the NS-CSHCN was to obtain state-specific sample sizes that were sufficiently large to permit reasonably precise estimates of the health characteristics of CSHCN in each state.

To achieve these goals, state samples were designed to obtain a minimum of 750 completed interviews. The number of children to be selected in each NIS estimation area was determined by allocating the total of 750 CSHCN in the state to each NIS estimation area within the state in proportion to the total estimated number of households with children in the NIS estimation area. Given this allocation, the number of households that needed to be screened in each NIS estimation area was calculated using the expected proportion of households with children under 18 years of age in the area. Then, the number of telephone numbers that needed to be called was computed using the expected working residential number rate, adjusted for expected nonresponse.

A total of 40,723 interviews were completed from April 2005 to February 2007 for the 2005/2006 National Survey of Children with Special Health Care Needs. A random-digit-dialed sample of households with children less than 18 years of age was selected from each of the 50 states and the District of Columbia. All children residing in the household under 18 years of age were screened for special health care needs using

the validated CSHCN Screener. If more than one child in the household was identified with special needs, only one child with special health care needs was randomly selected to be the subject of the survey. The respondent was a parent or guardian who knew about the child's health and health care.	
2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)* Survey: Patient **2a.25 Data source/data collection instrument** (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*)**:** 2005/06 National Survey of Children with Special Health Care Needs **2a.26-28 Data source/data collection instrument reference web page URL or attachment:** URL http://www.cdc.gov/nchs/data/slaits/NSCSHCNIIEnglishQuest.pdf **2a.29-31 Data dictionary/code table web page URL or attachment:** URL http://www.cshcndata.org/ViewDocument.aspx?item=260 **2a.32-35 Level of Measurement/Analysis** (*Check the level(s) for which the measure is specified and tested)* Population: national, Population: regional/network, Population: states **2a.36-37 Care Settings** (*Check the setting(s) for which the measure is specified and tested)* Other Applies to any care setting in which child receives care. Can stratify by usual source of care. **2a.38-41 Clinical Services** (*Healthcare services being measured, check all that apply*) Other Patient Experience	
TESTING/ANALYSIS	
2b. Reliability testing **2b.1 Data/sample** *(description of data/sample and size)*: **2b.2 Analytic Method** *(type of reliability & rationale, method for testing)*: Cognitive testing was conducted to test reliability and interpretability of questions across population. **2b.3 Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*: The Maternal and Child Health Bureau leads the development of the NSCH and NS-CSHCN survey and indicators, in collaboration with the National Center for Health Statistics (NCHS) and a national technical expert panel. The expert panel includes representatives from other federal agencies, state Title V leaders, family organizations, and child health researchers, and experts in all fields related to the surveys (adolescent health, family and neighborhoods, early childhood and development etc.). Previously validated questions and scales are used when available. Extensive literature reviewing and expert reviewing of items is conducted for all aspects of the survey. Respondents' cognitive understanding of the survey questions is assessed during the pretest phase and revisions made as required. All final data components are verified by NCHS and DRC/CAHMI staff prior to public release. Face validity is conducted in comparing results with prior years of the survey and/or results from other implementations of items. No specific reliability results are available for this measure. Please contact the CAHMI if quantitative measures are needed.	**2b** C☐ P☐ M☐ N☐
2c. Validity testing **2c.1 Data/sample** *(description of data/sample and size)*: **2c.2 Analytic Method** *(type of validity & rationale, method for testing)*: Cognitive testing was conducted with parents of children ages 0-17 years (interviews conducted over the phone with residential households). **2c.3 Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*:	**2c** C☐ P☐ M☐ N☐

Please see the references section for peer-reviewed articles which have used these items. Peer-reviewed papers generally undertake their own validity testing in order to meet strict peer review standards. See also Reliability Testing Results above.	
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** 2d.2 **Citations for Evidence:** 2d.3 **Data/sample** *(description of data/sample and size)*: 2d.4 **Analytic Method** *(type analysis & rationale)*: 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: 2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*: 2e.3 **Testing Results** *(risk model performance metrics)*: 2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:**	**2e** C☐ P☐ M☐ N☐ NA☐
2f. Identification of Meaningful Differences in Performance 2f.1 **Data/sample from Testing or Current Use** *(description of data/sample and size)*: 2f.2 **Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: 2f.3 **Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	**2f** C☐ P☐ M☐ N☐
2g. Comparability of Multiple Data Sources/Methods 2g.1 **Data/sample** *(description of data/sample and size)*: 2g.2 **Analytic Method** *(type of analysis & rationale)*: 2g.3 **Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g** C☐ P☐ M☐ N☐ NA☐
2h. Disparities in Care 2h.1 **If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: 2h.2 **If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	**2h** C☐ P☐ M☐ N☐ NA☐

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** **C☐** **P☐** **M☐** **N☐**
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information 3a.1 **Current Use:** In use 3a.2 **Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*)**:** U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2005–2006. Rockville, Maryland: U.S. Department of Health and Human Services, 2008. http://mchb.hrsa.gov/cshcn05/ 3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** The Data Resource Center websites have been accessed more than 18 million times since 2006. Thousands of state and national researchers, MCH providers and analysts use the data to report valid children's health data. Healthy People 2010 uses items from the national surveys, and several more are slated to be added into Healthy People 2020. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)***:** Focus groups were held with numerous stakeholder groups—family advocates, clinicians, Title V leaders, researchers—to obtain feedback on report formats. The Child and Adolescent Health Measurement Initiative led the focus groups and developed reports in accordance with a general consumer information framework. Additional focus groups were held when preparing data and reports for display on the Data Resource Center website. The Data Resource Center executive committee also reviewed report formats for interpretability and applicability. 3a.5 **Methods** *(e.g., focus group, survey, QI project)***:** Focus groups 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)***:**	**3a** **C☐** **P☐** **M☐** **N☐**
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population):	**3b** **C☐** **P☐** **M☐**

3b.2 Are the measure specifications harmonized? If not, why?	**N☐ NA☐**
3c. Distinctive or Additive Value **3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** **5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	**3c C☐ P☐ M☐ N☐ NA☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3 C☐ P☐ M☐ N☐**
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Survey	**4a C☐ P☐ M☐ N☐**
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) Yes **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.**	**4b C☐ P☐ M☐ N☐**
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c C☐ P☐ M☐ N☐ NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d C☐ P☐ M☐ N☐**
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Items are well understood and easy to implement. Items yield very low levels of missing values, don't know	**4e C☐ P☐ M☐ N☐**

or refused answers. 4e.2 **Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Item is public domain and there is no cost associated with its use. 4e.3 **Evidence for costs:** 4e.4 **Business case documentation:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** **C☐** **P☐** **M☐** **N☐**
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited ☐**
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**
CONTACT INFORMATION	
Co.1 **Measure Steward (Intellectual Property Owner)** Co.1 **Organization** Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau, Oregon Health & Science University, 707 SW Gaines Street, Portland, Oregon, 97239 Co.2 **Point of Contact** Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-	
Measure Developer If different from Measure Steward Co.3 **Organization** Maternal and Child Health Bureau, Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857 Co.4 **Point of Contact** Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-	
Co.5 **Submitter If different from Measure Steward POC** Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-, Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau	
Co.6 **Additional organizations that sponsored/participated in measure development**	
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 Maternal and Child Health Bureau convenes a Technical Expert Panel (TEP) comprised of dozens of health services researchers, survey methodology experts, and clinical health experts on children´s health to develop items for the National Survey of Children´s Health. In addition, members of the National Center for Health Statistics are included in item construction and measure development. The TEP participates in all aspects of measure development.	

Ad.2 If adapted, provide name of original measure: **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** 2005 **Ad.7 Month and Year of most recent revision:** 01, 2009 **Ad.8 What is your frequency for review/update of this measure?** Updated every 4 years when a new NS-CSHCN is developed **Ad.9 When is the next scheduled review/update for this measure?** 01, 2013
Ad.10 Copyright statement/disclaimers:
Ad.11 -13 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*)**:** 08/30/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1331 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Community-Based Service Systems are Organized so that Families of Children with Special Health Care Needs Can Easily Use Them
De.2 **Brief description of measure:** The measure describes the percentage of CSHCN who have families who have encountered difficulties or delays in accessing health care services for their children in the past 12 months
1.1-2 **Type of Measure:** Process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure**
De.4 **National Priority Partners Priority Area:** Patient and family engagement De.5 **IOM Quality Domain**: Patient-centered De.6 **Consumer Care Need:** Living with illness

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	**A** Y☐ N☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and	**B**

update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** No, testing will be completed within 12 months D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Affects large numbers 1a.2 1a.3 **Summary of Evidence of High Impact:** 1a.4 **Citations for Evidence of High Impact:** Child and Adolescent Health Measurement Initiative. 2005/06 National Survey of Children with Special Health Care Needs, Data Resource Center for Child and Adolescent Health website. www.cshcndata.org	**1a** C☐ P☐ M☐ N☐
1b. Opportunity for Improvement 1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** 1b.2 **Summary of data demonstrating performance gap (variation or overall poor performance) across providers:** 1b.3 **Citations for data on performance gap:** 1b.4 **Summary of Data on disparities by population group:**	**1b** C☐ P☐ M☐ N☐

1b.5 Citations for data on Disparities:	
1c. Outcome or Evidence to Support Measure Focus **1c.1 Relationship to Outcomes** (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** **1c.2-3. Type of Evidence:** Other Population Based Research **1c.4 Summary of Evidence** (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:** **1c.5 Rating of strength/quality of evidence (***also provide narrative description of the rating and by whom***):** **1c.6 Method for rating evidence:** **1c.7 Summary of Controversy/Contradictory Evidence:** **1c.8 Citations for Evidence (***other than guidelines***):** **1c.9 Quote the Specific guideline recommendation (***including guideline number and/or page number***):** **1c.10 Clinical Practice Guideline Citation:** **1c.11 National Guideline Clearinghouse or other URL:** **1c.12 Rating of strength of recommendation (***also provide narrative description of the rating and by whom***):** **1c.13 Method for rating strength of recommendation** (*If different from* USPSTF system*, also describe rating and how it relates to USPSTF)*: **1c.14 Rationale for using this guideline over others:**	**1c** **C☐** **P☐** **M☐** **N☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. 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)	Eval Rating
2a. MEASURE SPECIFICATIONS	

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):**
Percentage of children had difficulties trying to use community-based services

*Community-based services include any services that children need because of their health.

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator***):**

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions***):**

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
Children with Special Health Care Needs (CSHCN) age 0-17 years

2a.5 Target population gender: Female, Male
2a.6 Target population age range: Children with Special Health Care Needs (CSHCN) age 0-17 years

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
Denominator window is a fixed point in time

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
Children with special health care needs (CSHCN) age 0-17 years.

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** Excluded from denominator if child does not fall in target population age range of 0-17 years and/or does not have special health care needs.

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
If child is older than 17 years of age, excluded from denominator.
CSHCN are defined by the standardized and validated CSHCN Screener. The screener is administered at the beginning of the survey and all remaining items in the survey are only asked regarding a child with special health care needs.

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
No stratification is required.

The Community-Based Service Systems are Organized for Ease of Use measure is currently being administered in the 2009/10 National Survey of Children with Special Health Care Needs, which includes a number of child demographic variables that allow for stratification of the findings by possible vulnerability:
- Age
- Gender
- Geographic location- State, HRSA Region, National level Rural Urban Commuter Areas (RUCA)
- Race/ethnicity
- Health insurance- type, consistency
- Primary household language
- Household income
- Tyep of Special Health Care Need

2a-specs
C☐
P☐
M☐
N☐

2a.12-13 **Risk Adjustment Type:** No risk adjustment necessary

2a.14 **Risk Adjustment Methodology/Variables (***List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**

2a.15-17 **Detailed risk model available Web page URL or attachment:**

2a.18-19 **Type of Score:** Rate/proportion
2a.20 **Interpretation of Score:** Better quality = Higher score
2a.21 **Calculation Algorithm (***Describe the calculation of the measure as a flowchart or series of steps***):**
In development

2a.22 **Describe the method for discriminating performance** *(e.g., significance testing)***:**

2a.23 **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)*:
Best guideline to follow is the survey methodology used in the most recently completed survey, the 2005/2006 National Survey of Children with Special Health Care Needs (NS-CSHCN). The NS-CSHCN first uses the sampling frame generated in the process of data collection for the National Immunization Survey (NIS). Once it is determined whether a child is present in the household and whether or not they are age eligible for the NIS, it is then determined whether the child may also be eligible for the NS-CSHCN.

The goal of the NS-CSHCN sample design was to generate samples representative of populations of children with special health care needs within each state. An additional goal of the NS-CSHCN was to obtain state-specific sample sizes that were sufficiently large to permit reasonably precise estimates of the health characteristics of CSHCN in each state.

To achieve these goals, state samples were designed to obtain a minimum of 750 completed interviews. The number of children to be selected in each NIS estimation area was determined by allocating the total of 750 CSHCN in the state to each NIS estimation area within the state in proportion to the total estimated number of households with children in the NIS estimation area. Given this allocation, the number of households that needed to be screened in each NIS estimation area was calculated using the expected proportion of households with children under 18 years of age in the area. Then, the number of telephone numbers that needed to be called was computed using the expected working residential number rate, adjusted for expected nonresponse.

A total of 40,723 interviews were completed from April 2005 to February 2007 for the 2005/2006 National Survey of Children with Special Health Care Needs. A random-digit-dialed sample of households with children less than 18 years of age was selected from each of the 50 states and the District of Columbia. All children residing in the household under 18 years of age were screened for special health care needs using the validated CSHCN Screener. If more than one child in the household was identified with special needs, only one child with special health care needs was randomly selected to be the subject of the survey. The respondent was a parent or guardian who knew about the child's health and health care.

2a.24 **Data Source (***Check the source(s) for which the measure is specified and tested)*
Survey: Patient

2a.25 **Data source/data collection instrument (***Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
2009/10 National Survey of Children with Special Health Care Needs

2a.26-28 **Data source/data collection instrument reference web page URL or attachment:**

2a.29-31 **Data dictionary/code table web page URL or attachment:**

2a.32-35 **Level of Measurement/Analysis** (*Check the level(s) for which the measure is specified and tested)*
Population: national, Population: regional/network, Population: states

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)* Other Applies to any care setting in which child receives care. Can stratify by usual source of care. **2a.38-41 Clinical Services** (*Healthcare services being measured, check all that apply*) Other Patient Experience	
TESTING/ANALYSIS	
2b. Reliability testing **2b.1 Data/sample** *(description of data/sample and size)*: **2b.2 Analytic Method** *(type of reliability & rationale, method for testing)*: **2b.3 Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:	**2b** C☐ P☐ M☐ N☐
2c. Validity testing **2c.1 Data/sample** *(description of data/sample and size)*: **2c.2 Analytic Method** *(type of validity & rationale, method for testing)*: **2c.3 Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*:	**2c** C☐ P☐ M☐ N☐
2d. Exclusions Justified **2d.1 Summary of Evidence supporting exclusion(s):** **2d.2 Citations for Evidence:** **2d.3 Data/sample** *(description of data/sample and size)*: **2d.4 Analytic Method** *(type analysis & rationale)*: **2d.5 Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures **2e.1 Data/sample** *(description of data/sample and size)*: **2e.2 Analytic Method** *(type of risk adjustment, analysis, & rationale)*: **2e.3 Testing Results** *(risk model performance metrics)*: **2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:**	**2e** C☐ P☐ M☐ N☐ NA☐
2f. Identification of Meaningful Differences in Performance	**2f** C☐

2f.1 Data/sample from Testing or Current Use *(description of data/sample and size)*: **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	**P☐ M☐ N☐**
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g C☐ P☐ M☐ N☐ NA☐**
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	**2h C☐ P☐ M☐ N☐ NA☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** **C☐ P☐ M☐ N☐**
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** Testing not yet completed **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2005-2006. Rockville, Maryland: U.S. Department of Health and Human Services, 2008. http://mchb.hrsa.gov/cshcn05/ **3a.3 If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** The Data Resource Center websites have been accessed more than 18 million times since 2006. Thousands of state and national researchers, MCH providers and analysts use the data to report valid children's health data. Healthy People 2010 uses items from the national surveys, and several more are slated to be added into	**3a C☐ P☐ M☐ N☐**

Healthy People 2020. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) **3a.4 Data/sample** *(description of data/sample and size)*: Focus groups were held with numerous stakeholder groups—family advocates, clinicians, Title V leaders, researchers—to obtain feedback on report formats. The Child and Adolescent Health Measurement Initiative led the focus groups and developed reports in accordance with a general consumer information framework. Additional focus groups were held when preparing data and reports for display on the Data Resource Center website. The Data Resource Center executive committee also reviewed report formats for interpretability and applicability. **3a.5 Methods** *(e.g., focus group, survey, QI project)*: Focus groups **3a.6 Results** *(qualitative and/or quantitative results and conclusions)*:	
3b/3c. Relation to other NQF-endorsed measures **3b.1 NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): **3b.2 Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value **3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** **5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	**3c** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐ M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Survey	**4a** C☐ P☐ M☐ N☐
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure*	**4b** C☐ P☐

scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** No- measure still in development. The questionnaire with the measure specifications isn't available yet due to potential final changes from MCHB, but we will provide the electronic version of the questionnaire once it is finalized.	M☐ N☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** C☐ P☐ M☐ N☐ NA☐
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d** C☐ P☐ M☐ N☐
4e. Data Collection Strategy/Implementation **4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** **4e.3 Evidence for costs:** **4e.4 Business case documentation:**	**4e** C☐ P☐ M☐ N☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** C☐ P☐ M☐ N☐
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited** ☐
Steering Committee: Do you recommend for endorsement? **Comments:**	Y☐ N☐ A☐
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner) **Co.1 Organization**	

Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau, Oregon Health & Science University, 707 SW Gaines Street, Portland, Oregon, 97239

Co.2 **Point of Contact**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-

Measure Developer If different from Measure Steward
Co.3 **Organization**
Maternal and Child Health Bureau, Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857

Co.4 **Point of Contact**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-

Co.5 **Submitter If different from Measure Steward POC**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-, Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau

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

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 Maternal and Child Health Bureau convenes a Technical Expert Panel (TEP) comprised of dozens of health services researchers, survey methodology experts, and clinical health experts on children´s health to develop items for the National Survey of Children´s Health. In addition, members of the National Center for Health Statistics are included in item construction and measure development. The TEP participates in all aspects of measure development.

Ad.2 **If adapted, provide name of original measure:**
Ad.3-5 **If adapted, provide original specifications URL or attachment**

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.6 **Year the measure was first released:** 2009
Ad.7 **Month and Year of most recent revision:** 01, 2009
Ad.8 **What is your frequency for review/update of this measure?** Updated every 4 years when a new NS-CSHCN is developed
Ad.9 **When is the next scheduled review/update for this measure?** 01, 2013

Ad.10 **Copyright statement/disclaimers:**

Ad.11 -13 **Additional Information web page URL or attachment:**

Date of Submission (*MM/DD/YY*)**:** 08/30/2010