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 #:** 1334 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Children Who Received Preventive Dental Care
De.2 **Brief description of measure:** Assesses how many preventive dental visits during the prevsiou 12 months
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:** 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*)**:** Proprietary measure A.3 **Measure Steward Agreement:** Government entity and in the public domain - no agreement necessary 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.	**C**

▶**Purpose:**	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 1a.2 1a.3 **Summary of Evidence of High Impact:** Preventive dental visits are important to oral health and have been recognized as an objective by The U.S. Department of Health and Human Services as an objective in Healthy People 2010 and Healthy People 2020 (OH HP2020-4 Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year). 1a.4 **Citations for Evidence of High Impact:** Child and Adolescent Health Measurement Initiative. 2007 National Survey of Children´s Health, Data Resource Center for Child and Adolescent Health website. www.nschdata.org	**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 whether or not children are receiving preventive dental care. This measure allows for comparison across populations and demographic groups. 1b.2 **Summary of data demonstrating performance gap (variation or overall poor performance) across providers:** Nationally, 78.4% of children had at least 1 preventive dental visit in the past 12 months. There is a broad range in the proportion of children who have routine preventive dental visits. The range across states is 68.5% of children in Florida to 86.9% of children in Hawaii. 1b.3 **Citations for data on performance gap:** 1. Child and Adolescent Health Measurement Initiative. 2007 National Survey of Children´s Health, Data	**1b** C☐ P☐ M☐ N☐

Resource Center for Child and Adolescent Health website. www.nschdata.org

2. Dietrich T, Culler C, Garcia RI, Henshaw MM. Racial and ethnic disparities in children´s oral health: the National Survey of Children´s Health. J Am Dent Assoc. 2008;139(11):1507-1517.

3. Edelstein BL, Chinn CH. Update on disparities in oral health and access to dental care for America´s children. Acad Pediatr. 2009;9(6):415-419.

4. Flores G, Tomany-Korman SC. The language spoken at home and disparities in medical and dental health, access to care, and use of services in US children. Pediatrics. 2008;121(6):e1703-14.

5. Kenney MK. Oral health care in CSHCN: state Medicaid policy considerations. Pediatrics. 2009;124 Suppl 4:S384-91.

6. Kenney MK, Kogan MD, Crall JJ. Parental perceptions of dental/oral health among children with and without special health care needs. Ambul Pediatr. 2008;8(5):312-320.

7. Liu J, Probst JC, Martin AB, Wang JY, Salinas CF. Disparities in dental insurance coverage and dental care among US children: the National Survey of Children´s Health. Pediatrics. 2007;119 Suppl 1:S12-21.

8. Milgrom P, Zero DT, Tanzer JM. An examination of the advances in science and technology of prevention of tooth decay in young children since the Surgeon General´s Report on Oral Health. Acad Pediatr. 2009;9(6):404-409.

9. Mouradian WE, Slayton RL, Maas WR, et al. Progress in children´s oral health since the Surgeon General´s Report on Oral Health. Acad Pediatr. 2009;9(6):374-379.

1b.4 Summary of Data on disparities by population group:
Uninsured children are the least likely to receive preventive dental visits (58.5%), followed by publicly insured children (76.2%) and privately insured children (82.4%).
Only 53.5% of 1 to 5-year-old children have preventive dental visits, while at least 87.8% of children age 6 years and older have preventive dental visits.

1b.5 Citations for data on Disparities:
1. Child and Adolescent Health Measurement Initiative. 2007 National Survey of Children´s Health, Data Resource Center for Child and Adolescent Health website. www.nschdata.org

2. Dietrich T, Culler C, Garcia RI, Henshaw MM. Racial and ethnic disparities in children´s oral health: the National Survey of Children´s Health. J Am Dent Assoc. 2008;139(11):1507-1517.

3. Edelstein BL, Chinn CH. Update on disparities in oral health and access to dental care for America´s children. Acad Pediatr. 2009;9(6):415-419.

4. Flores G, Tomany-Korman SC. The language spoken at home and disparities in medical and dental health, access to care, and use of services in US children. Pediatrics. 2008;121(6):e1703-14.

5. Kenney MK. Oral health care in CSHCN: state Medicaid policy considerations. Pediatrics. 2009;124 Suppl 4:S384-91.

6. Kenney MK, Kogan MD, Crall JJ. Parental perceptions of dental/oral health among children with and without special health care needs. Ambul Pediatr. 2008;8(5):312-320.

7. Liu J, Probst JC, Martin AB, Wang JY, Salinas CF. Disparities in dental insurance coverage and dental care among US children: the National Survey of Children´s Health. Pediatrics. 2007;119 Suppl 1:S12-21.

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9. Mouradian WE, Slayton RL, Maas WR, et al. Progress in children´s oral health since the Surgeon General´s Report on Oral Health. Acad Pediatr. 2009;9(6):374-379.

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*)**:** Increasing preventive dental care among children will have a positive impact on overall oral health and potentially reduce the need and burden of acute oral health care. It will also help to identify emerging oral conditions and alleviate future unmet need for care.

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*)**:**
Children who had at least one preventive dental visit in the previous 12 months were less likely to report having unmet needs for dental care (38.4% vs. 50.4%).

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 who had one or more preventive dental visits in the past 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; anchored to past 12 months

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, they must have seen a dentsit for preventive dental care at least once in the past 12 months.

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*)**:**
Children age 1-17 years

2a.5 Target population gender: Female, Male
2a.6 Target population age range: Children age 1-17 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 age 1-17 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 1-17 years.

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 1 year of age, excluded from denominator.

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 Preventive Dental Visits measure was administered in its most recent form, in the 2007 National Survey of Children´s Health, 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
- Special Health Care Needs- status and type

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-specs
C☐
P☐
M☐
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***):**
To receive numerator of child having preventive dental visit:
-Must have at 1 or more visits to the dentist for preventive care (K4Q21=1 or more).

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)*

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

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

TESTING/ANALYSIS

2b. Reliability testing **2b**

2b.1 Data/sample *(description of data/sample and size)*: Qualitative testing of the entire 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)*: 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.	C☐ P☐ M☐ N☐
2c. Validity testing **2c.1 Data/sample** *(description of data/sample and size)*: 640 interviews were completed over 3 days in December 2006 **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** C☐ P☐ M☐

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:**	**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 Health and Well-Being of Children: A Portrait of States and the Nation 2007.	**3a C☐ P☐ M☐ N☐**

Chartbook based on data from the 2007 National Survey of Children's Health. http://mchb.hrsa.gov/nsch07/index.html. **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)*:	
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:** 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
Maternal and Child Health Bureau, Health Resources & Services Administration., Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857

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
See Ad.1 below, -, -, -, Maryland, -

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-, Maternal and Child Health Bureau, Health Resources & Services Administration.

Co.6 Additional organizations that sponsored/participated in measure development
See Ad.1 below

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 more than a dozen members. Members include other federal agencies, health services researchers, survey methodology experts, consumer organizations and clinical health experts on children´s health. The TEP consults in the identification and/or development of items for MCHB to consider for inclusion in the National Survey of Children's Health, including making recommendations for the scoring and reporting of measures resulting from the national survey. Members of the committee are drawn from the public and private sector, including members from national universities and national parenting and family groups, the Child and Adolescent Health Measurement Initiative (through the MCHB-sponsored Data Resource Center for Child and Adolescent Health) as well as members from the National Center for Health Statistics, the Centers for Disease Control and Prevention and other federal agencies. There is a range of activity performed by different members of the TEP depending on which measure is being developed, areas of expertise etc. The TEP process usually consists of 1 or 2 in person meetings, 6 or more conference calls, and numerous email exchanges. Subcommittees are formed based on areas of expertise. Because this is a collaborative activity, there is not a single developer of this measure.

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:

Ad.11 -13 Additional Information web page URL or attachment: Attachment NSCH TEP 2007-634384046186842713.doc

Date of Submission (*MM*/*DD*/*YY*)**:** 04/14/2011

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 #:** 1335 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Children Who Have Dental Decay or Cavities
De.2 **Brief description of measure:** Assesses if children age 1-17 years have had tooth decay or cavities in the past 6 months
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:** Effectiveness 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:** Government entity and in the public domain - no agreement necessary 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:**	**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, Severity of illness 1a.2 1a.3 **Summary of Evidence of High Impact:** Dental cavities have been identified as the most common chronic disease for children. Nationally, 19.4% of children have dental decay or cavities. 1a.4 **Citations for Evidence of High Impact:** Child and Adolescent Health Measurement Initiative. 2007 National Survey of Children´s Health, Data Resource Center for Child and Adolescent Health website. www.nschdata.org	**1a** C☐ P☐ M☐ N☐
1b. Opportunity for Improvement 1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** Children who have dental decay or cavities are less likely to be in very good or excellent overall health than children without decay or cavities. Children with decay are also more likely to have other oral health problems such as toothaches, broken teeth, and bleeding gums. 1b.2 **Summary of data demonstrating performance gap (variation or overall poor performance) across providers:** There is a broad range in the proportion of children with dental decay or cavities. The range across states is 14.5% in Minnesota to 24.6% of children in Arizona. 1b.3 **Citations for data on performance gap:** 1. Edelstein BL, Chinn CH. Update on disparities in oral health and access to dental care for America´s children. Acad Pediatr. 2009;9(6):415-419.	**1b** C☐ P☐ M☐ N☐

2. Milgrom P, Zero DT, Tanzer JM. An examination of the advances in science and technology of prevention of tooth decay in young children since the Surgeon General´s Report on Oral Health. Acad Pediatr. 2009;9(6):404-409.

1b.4 Summary of Data on disparities by population group:
Children with a household income below 200% FPL are more likely to have dental decay or cavities than children living at 200% FPL or higher (25.2% vs 16%).
Hispanic children have the highest prevalence of dental decay or cavities at 28.1%, followed by black, non-Hispanic children at 20.2% and white children at 16.2%.

1b.5 Citations for data on Disparities:
1. Edelstein BL, Chinn CH. Update on disparities in oral health and access to dental care for America´s children. Acad Pediatr. 2009;9(6):415-419.

2. Milgrom P, Zero DT, Tanzer JM. An examination of the advances in science and technology of prevention of tooth decay in young children since the Surgeon General´s Report on Oral Health. Acad Pediatr. 2009;9(6):404-409.

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*)**:**
Children with dental decay or cavities are less likely to be in very good or excellent health than children without denal decay or cavities (77% vs. 86%).

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?

1

Rationale:	**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*)**:** Whether child had cavities or decayed teeth in past 6 months. 2a.2 **Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*)**:** Encounter or point in time; question anchored to past 6 months 2a.3 **Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*)**:** If K2Q53=1, child had decayed teeth or cavities in last 6 months. If K2Q53=0, child did not have decayed teeth or cavities in last 6 months.	
2a.4 **Denominator Statement** (*Brief, text description of the denominator - target population being measured*)**:** Children and adolescents age 1-17 years 2a.5 **Target population gender:** Female, Male 2a.6 **Target population age range:** Children age 1-17 years 2a.7 **Denominator Time Window** (*The time period in which cases are eligible for inclusion in the denominator*)**:** Time window is a fixed period of time. Assesses whether child had cavities or decayed teeth in the last 6 months. 2a.8 **Denominator Details** (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*)**:** Children 1-17 years of age	
2a.9 **Denominator Exclusions** (*Brief text description of exclusions from the target population*)**:** Children are excluded from denominator if they do not fall in target population age range (1-17 years) 2a.10 **Denominator Exclusion Details** (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*)**:** Children are excluded from denominator if --child does not fall in target population age range (1-17 years). If child is less than one year old, skip questions	
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 Decay or Cavities measure was administered in its most recent form, in the 2007 National Survey of Children´s Health, the survey included a number of child demographic variables that allow for stratification of the findings by possible vulnerability: • Age	**2a-specs C☐ P☐ M☐ N☐**

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

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 child having decayed teeth or cavities:
-Had decayed teeth or cavities(K2Q53= 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 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)*

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

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)*: Qualitative testing of the entire 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)*:
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)*: 640 interviews were completed over 3 days in December 2006

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 C☐ P☐ M☐ N☐ NA☐

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)*:	
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 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. http://mchb.hrsa.gov/nsch07/index.html. **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.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☐ N☐

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** ☐
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 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
Maternal and Child Health Bureau, Health Resources & Services Administration, Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857

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
See Ad.1 below, -, -, -, Maryland, -

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-, Maternal and Child Health Bureau, Health Resources & Services Administration

Co.6 Additional organizations that sponsored/participated in measure development
See Ad.1 below

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 more than a dozen members. Members include other federal agencies, health services researchers, survey methodology experts, consumer organizations and clinical health experts on children´s health. The TEP consults in the identification and/or development of items for MCHB to consider for inclusion in the National Survey of Children's Health, including making recommendations for the scoring and reporting of measures resulting from the national survey. Members of the committee are drawn from the public and private sector, including members from national universities and national parenting and family groups, the Child and Adolescent Health Measurement Initiative (through the MCHB-sponsored Data Resource Center for Child and Adolescent Health) as well as members from the National Center for Health Statistics, the Centers for Disease Control and Prevention and other federal agencies. There is a range of activity performed by different members of the TEP depending on which measure is being developed, areas of expertise etc. The TEP process usually consists of 1 or 2 in person meetings, 6 or more conference calls, and numerous email exchanges. Subcommittees are formed based on areas of expertise. Because this is a collaborative activity, there is not a single developer of this measure.

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:
Ad.11 -13 Additional Information web page URL or attachment: Attachment NSCH TEP 2007-634384061052250351.doc
Date of Submission (*MM/DD/YY*)**:** 04/14/2011

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

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(for NQF staff use) **NQF Review #:** 1388 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Annual Dental Visit
De.2 **Brief description of measure:** The percentage of members 2-21 years of age who had at least one dental visit during the measurement year.
1.1-2 **Type of Measure:** Access De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** None
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	
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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:**	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:** In the year 2000, only 66.2 percent of Americans 2 years of age and older reported having a dental visit within the last year. For those in poverty, the rate was 47 percent (CDC, 2002). The CDC estimates that in the United States approximately 40 percent of children have caries (tooth decay) by the time they enter kindergarten (AAP, 2003); more than 50 percent have caries by second grade and 80 percent have caries by the time they graduate high school. According to the recently released Surgeon General's Report on Oral Health, dental and oral disease are silent diseases that affect poor Americans—especially children and the elderly. Dental caries is the most common chronic childhood disease—five times more common than asthma. There are striking disparities in dental disease by income. According to a recent GAO report, poor children had five times more untreated dental caries than children in higher-income families. Professional care is necessary for maintaining oral health; 25 percent of oral diseases in children are substantial. More than 51 million school hours are lost each year to dental-related illness. Poor children suffer nearly 12 times more restricted-activity days than children from higher income families. Pain and suffering due to untreated diseases can lead to problems in eating, speaking and attending to learning. Additionally, because tooth decay and periodontal disease are progressive and cumulative, poor oral health and dental disease often continue from childhood into adulthood.	1a C☐ P☐ M☐ N☐

Expenditures for dental services made up 4.6 percent of the nation's health expenditures in 2001—$65.5 billion out of $1.4 trillion (Health Care Financing Administration). Of this spending, $3.1 billion was provided by Medicaid. In 2004, the national and Medicaid dental expenditures are projected to increase to $78.0 and $4.4 billion, respectively. The figures underestimate the true cost, since data on craniofacial health are not available. Total expenditures for dental services have been increasing 5–6 percent a year since 1995.

1a.4 Citations for Evidence of High Impact: CDC: Health, United States, 2002.

American Academy of Pediatrics—Section on Pediatric Dentistry; Policy Statement: Oral Health Risk Assessment Timing and Establishment of the Dental Home. Pediatrics 2003: 111(5).

American Cancer Society: Cancer Facts and Figures 2003. http://www.cancer.org/docroot/STT/ stt_0.asp

Dental Services Expenditures, Percent Distribution and Per Capita Amounts, by Source of Funds: Selected Calendar Years 1970–2008, Office of the Actuary, Health Care Financing Administration.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: The disease burden of dental disease, particularly for children with low socioeconomic status, is high, and the damage caused by dental caries is irreversible. Receiving an annual visit would provide access to preventive care, anticipatory guidance and early treatment if necessary. This access, in turn, would greatly improve the oral health of poor children.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Tooth decay is preventable, and early diagnosis is important for successful treatment of periodontal diseases. While the overall trend in oral health has improved over the last 30 years, there remains a significant proportion of the population who do not have optimal oral health care. In the year 2007, reports showed that only 77 percent of Americans age two years and older had a dental visit within the last year. For those in poverty, the rate was 47 percent (CDC, 2008). Other reports have estimated that about 75 percent of children aged three to four years have never seen their dentist (dela Cruz., 2004).
Medicaid's Early Periodic Screening Diagnosis and Treatment (EPSDT) program is intended to provide regular dental screenings and appropriate treatment. However, according to a report by the Office of the Inspector General of the Department of Health and Human Services, only 20 percent of children under 21 years of age who were enrolled in Medicaid and eligible for EPSDT actually received preventive dental services.
NCQA's HEDIS measure has shown that performance among health plans is low. The rate was 43.55% in 2007.

1b.3 Citations for data on performance gap:
CDC: Health, United States, 2008.

dela Cruz. G.G. MD, MPH, et al. Dental Screening and Referral of Young Children by Pediatric Primary Care Providers. Pediatrics November 2004. Vol. 114 No

1b.4 Summary of Data on disparities by population group:
The most advanced oral health disease is found primarily among children living in poverty, some racial/ethnic minority populations, disabled children, and children with HIV infection. (CDC, 2004) Low income children are twice as likely to have tooth decay untreated, (CDC, 2007) and have half the number of dental visits compared with higher income children.
Medicaid's Early Periodic Screening Diagnosis and Treatment (EPSDT) program is intended to provide regular dental screenings and appropriate treatment but has apparently played a limited role in improving access to dental care for poor children. According to a report by the Office of the Inspector General of the Department of Health and Human Services, only 20% of children under 21 years of age, who were enrolled in Medicaid and eligible for EPSDT, actually received preventive dental services.

1b.5 Citations for data on Disparities:
Centers for Disease Control and Prevention: Children's Oral Health.
http://www.cdc.gov/OralHealth/publications/factsheets/sgr2000_fs3.htm. Updated October 2004.

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Centers for Disease Control and Prevention: Children's Oral Health. http://www.cdc.gov/OralHealth/topics/child.htm. Updated Oct 2007.

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 USPSTF found fair evidence that, in preschool children with low fluoride exposure, prescription of oral fluoride supplements by primary care clinicians leads to reduced dental caries. The USPSTF concluded that the benefits of caries prevention using oral fluoride supplementation outweigh the potential harms of dental fluorosis, which in the United States are primarily observed as a mild cosmetic discoloration of the teeth.

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*)**:**
Guidelines set by the AAPD, the ADA and the AAP recommend the first dental visit occur for children by age 1.
The AAPD's guidelines indicate that the first dental visit should be within 6 months of the eruption of the first primary tooth and no later than 12 months of age (AAPD, 2002).

In its May 2003 policy, the AAP (section on Pediatric Dentistry) stated that high-risk children should be identified at an early age. As such, every child should receive an oral health risk assessment by age 6 months by either a pediatrician or other qualified health provider. By age 1 year, children, especially those at risk (JADA, 2002) should have an established dental home (ADA 2002). These early visits can facilitate initiation of preventive care and anticipatory guidance.

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***):** American Academy of Pediatric Dentistry. Guideline on infant oral health. Pediatr Dent. 2002:24(special issue):46.

Journal of the American Dental Association. Baby's First Teeth. February 2002: Vol 133.

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number***):**
The AAFP strongly recommends ordering fluoride supplementation to prevent dental caries based on age and fluoride concentration of patient's water supply for patients residing in areas with inadequate fluoride in the water supply (less than 0.6 ppm).

The USPSTF recommends that primary care clinicians prescribe oral fluoride supplementation at currently recommended doses to preschool children older than 6 months of age whose primary water source is deficient in fluoride.
The ISCI encourage children age 2-18 years having regular dental visits, brushing teeth daily with fluoridated toothpaste and flossing, and having healthy eating habits to reduce the risk of dental caries

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
Institute for Clinical Systems Improvement. Preventive Services for Children and Adolescents Thirteenth Edition. October 2007
American Academy of Pediatric Dentistry. Clinical guideline on infant oral health care. Chicago (IL): American Academy of Pediatric Dentistry; 2004.

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American Academy of Pediatrics. Oral Health Risk Assessment Timing and Establishment of the Dental Home. Pediatrics. Vol. 111 No. 5 May 2003. ADA endorsed.http://www.guideline.gov/content.aspx?id=15251 1c.11 **National Guideline Clearinghouse or other URL:** Guideline on infant oral health care. http://www.guideline.gov/content.aspx?id=15251 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 1c.14 **Rationale for using this guideline over others:** After evaluating the body of evidence and guidelines, the expert panel concluded this measure was important.	
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*)**:** Had at least one dental visit during the measurement year 2a.2 **Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*)**:** 1 year 2a.3 **Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*)**:** One or more dental visits with a dental practitioner during the measurement year. A member had a dental visit if a submitted claim/encounter contains any code in Table ADV-A: Codes to Identify Annual Dental Visits:	
2a.4 **Denominator Statement** (*Brief, text description of the denominator - target population being measured*)**:** members 2–21 years of age 2a.5 **Target population gender:** Female, Male 2a.6 **Target population age range:** 2–21 years of age 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***):**
70300, 70310, 70320, 70350, 70355
D0120-D0999, D1110-D2999, D3110-D3999, D4210-D4999, D5110-D5899, D6010-D6205, D7111-D7999, D8010-D8999, D9110-D9999
23, 24, 87.11, 87.12, 89.31, 93.55, 96.54, 97.22, 97.33-97.35, 99.97

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***):**
Stratified by age:

- 2-3-years
- 4-6-years
- 7-10-years
- 11-14-years
- 15-18-years
- 19-21-years

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
Step 2: Determine the numerator
Children who had documentation of the screening or service during 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)*:
No sampling

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Electronic administrative data/claims, Electronic Clinical Data

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.***):**
Administrative data

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)*
Health Plan, Integrated Delivery System, Population : National, Population : Regional/network

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)* Ambulatory Care : Clinic, Ambulatory Care : Hospital Outpatient, Ambulatory Care : Office **2a.38-41 Clinical Services** (*Healthcare services being measured, check all that apply*) Clinicians: Physicians (MD/DO)	
TESTING/ANALYSIS	
2b. Reliability testing **2b.1 Data/sample** *(description of data/sample and size)*: We did not conduct reliability testing for this 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)*: Expert panel and stakeholders **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. **2c.3 Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: This measure was deemed valid by the expert panel.	**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)*:	**2e** C☐ P☐ M☐ N☐ NA☐

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)*: Current HEDIS 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)*:
11-14 Years Old
HEDIS 2006 Data
National Mean: 46.64
10th %ile: 32.05
50th %ile: 46.43
90th %ile: 60.95
HEDIS 2007 Data
National Mean: 48.21
10th %ile: 34.07
50th %ile: 48.86
90th %ile: 66.79
15-18 Years Old
HEDIS 2006 Data
National Mean: 39.59
10th %ile: 28.31
50th %ile: 38.28
90th %ile: 52.76
HEDIS 2007 Data
Naional Mean: 40.76
10th %ile: 28.66
50th %ile: 41.4
90th %ile: 55.19
19-21 Years Old
HEDIS 2006 Data
National Mean: 30.4
10th %ile: 18.71
50th %ile: 30.62
90th %ile: 42.49
HEDIS 2007 Data
National Mean: 31.09
10th %ile: 15.11
50th %ile: 32.68
90th %ile: 41.56
Total
HEDIS 2006 Data
National Mean: 42.48
10th %ile: 27.94
50th %ile: 42.84
90th %ile: 57.27
HEDIS 2007 Data
National Mean: 43.55

2f
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10th %ile: 27.5 50th %ile: 45.08 90th %ile: 61.26	
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: NA **2g.2 Analytic Method** *(type of analysis & rationale)*: This measure is administrative data only **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:** 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*): This measure is used in public reporting. **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 a measure in the Healthcare Effectiveness Data and Information Set (HEDIS) **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)*: General public and other stakeholder groups (i.e. HEDIS users) **3a.5 Methods** *(e.g., focus group, survey, QI project)*: For the health plan measure, we released the measure for public comment and reviewed all results with the NCQA Committee on Performance Measurement (CPM). We also reviewed first-year results with the CPM. **3a.6 Results** *(qualitative and/or quantitative results and conclusions)*: NCQA received feedback that the measure is understandable, feasible, important and valid. Upon review of public comment results, the Committee on Performance Measurement approved the NCQA	**3a** C☐ P☐ M☐ N☐

staff recommendation to add the measure to HEDIS. After reviewing first-year analysis results, the CPM approved the staff recommendation to publicly report the measure. The measure was deemed usable and feasible.	
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:** NA	**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?** 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 may 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** C☐ P☐ M☐ N☐ NA☐

4c.2 If yes, provide justification.	
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.** All measures that are used in NCQA programs are audited.	**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 data analysis over the years, we specified the measure to assess whether children received a dental care visits; we specify multiple age bands in order to enable assessment at various stages of a child´s development. HEDIS results show that these data elements are available in administrative data sources. **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** This measure appears in HEDIS and is subject to HEDIS costs. **4e.3 Evidence for costs:** Based on user 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? **Comments:**	Y☐ N☐ A☐
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner) **Co.1 Organization** National Committee for Qualtiy 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 Qualtiy 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 Qualtiy 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.
Over the years, the following expert panel has contributed to many of the measures in the HEDIS set that apply to women and children.
David Archer, MD
Eastern Virginia Medical School
Grant P. Bagley, MD, JD
Arnold & Porter
Thomas J. Benedetti, MD
University of Washington Medical Center
Denis Dougherty
Agency for Healthcare Research and Quality (AHRQ)
Christopher B. Forrest, MD, PhD
The Children's Hospital of Philadelphia
Shirley Girouard, PhD, RN
Southern Connecticut State University
Bill Heuston, MD
Medical University of South Carolina
Mary Kay Holleran
Highmark Caring Foundation
Charles Homer MD, MPH
National Initiative for Children's Healthcare Quality
Marilyn C. Jones, MD
Children's Hospital
Milton Kotelchuck, PhD, MPH
Boston University School of Public Health Mark Mandell, MD
Partners Community Health Care, Inc.
Dorothy Mann, PhD, MPH
Consultant
Robert H. Pantell, MD
University of California, San Francisco
Lee Partridge
Health Resources and Services Administration (HRSA)
Mark Pearlman, MD
University of Michigan Health Systems
Robin S. Richman, MD
Harvard Vanguard Medical Associates
Michael G. Ross, MD, MPH
University of California, Los Angeles
Medical Center
Maureen Shannon, CNM, FNP, MS
University of California, San Francisco
Jeff Susman, MD
University of Cincinnati
Lynne S. Wilcox, MD, MPH
Centers for Disease Control and Prevention (CDC)

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:** 1997 **Ad.7 Month and Year of most recent revision:** 07, 2010 **Ad.8 What is your frequency for review/update of this measure?** Annual **Ad.9 When is the next scheduled review/update for this measure?** 07, 2011
Ad.10 Copyright statement/disclaimers: © 1997 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*)**:** 09/02/2010

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 #:** 1419 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Primary Caries Prevention Intervention as Part of Well/Ill Child Care as Offered by Primary Care Medical Providers
De.2 **Brief description of measure***:* The measure will a) track the extent to which the PCMP or clinic (determined by the provider number used for billing) applies FV as part of the EPSDT examination and b) track the degree to which each billing entity's use of the EPSDT with FV codes increases from year to year (more children varnished and more children receiving FV four times a year according to ADA recommendations for high-risk children).
1.1-2 **Type of Measure:** Use of services 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:** Getting better, 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 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:**	**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, Leading cause of morbidity/mortality 1a.2 1a.3 **Summary of Evidence of High Impact:** The literature reflects that fluoride varnish when applied to the teeth of high-risk children, reduces, in conjunction with anticipatory guidance provided to the caregiver, the risk of the child developing caries. 1a.4 **Citations for Evidence of High Impact:** See reference page.	**1a** C☐ P☐ M☐ N☐
1b. Opportunity for Improvement 1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** Caries (the process of which the end result is the cavity) is the most common chronic disease of childhood (five times more common than asthma and seven times more common than hay fever). Dental care is the most common health need of high-risk children; yet, according to the GAO, only about one third of the 20 million children covered by Medicaid/CHIP received any dental care in 2007. Children are 2.6 times more likely to have medical coverage than dental coverage. Only 20-30% of Medicaid-eligible children receive preventive healthcare. Based on 2005 enrollment, the GAO estimated that 6.5 million Medicaid-eligible children 2-18 years of age had untreated tooth decay and more than five percent had urgent conditions. 1.1 million children 2-18 years of age had conditions that warranted seeing a dentist within two weeks. The sad reality is that 50% of tooth decay in low-income children goes untreated. One in eight children never sees a dentist, while more	**1b** C☐ P☐ M☐ N☐

than half of children with private insurance received dental care in the preceding year. The GAO has estimated that in 2005, 724,000 children 2-18 years of age could not get needed dental care. Starting several decades ago, the Scandinavian countries began to use topically applied FV as a way of preventing caries. Wentraub recently showed that one application of FV will cut the caries rate by 50% and a second application will cut it by another 50%. 43 state Medicaid programs are currently reimbursing PCMP for offering caries prevention intervention (CPI) as part of well/ill child care. Reimbursement rates range from $9.00 to close to $62.00. The procedure takes little time – less than five minutes for a child with a full set of primary teeth, and is noninvasive. FV reverses demineralization and enhances remineralization of the enamel of the tooth. Both actions will lead to the reduction of caries.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Minnesota's DHS can create a report that shows by PCMP the number of EPSDT examinations done on unduplicated and duplicated patients, with or without FV.Following are data from 2009 and 2010:

2009: EPSDT service recipients, all ages – 235,493; EPSDT visits, all ages – 350,430; FV recipients, all ages – 9,104; FV service visits; all ages – 11,006

2010 (first 6 months)*: EPSDT service recipients, all ages – 172,852; EPSDT visits, all ages – 234,188; FV recipients, all ages – 9,238; FV service visits, all ages – 10,258

*DHS does not consider the data set complete until 12 months after last date of service

1b.3 Citations for data on performance gap:
JA. Wentraub, F. Ramos-Gomez, B. Jue, S. Shain, CI. Hoover, JDB. Featherstone, and SA. Gansky. Fluoride Varnish Efficacy in Prevention ECC. J Dent Res 85(2): 172-176, 2006.

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

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*)**:** Caries is an infectious disease and is thus theoretically preventable. Fluoride interferes with the metabolism of the microflora (particularly Streptococcus mutans) which reside in plaque. Caries can only occur if there is a tooth, sugars, and bacteria. For their own metabolic purposes, the bacteria digest the sugars in the foods and liquids which the child consumes, creating an acidic excrement which etches the enamel of the tooth, starting the caries process, the end result of which is the cavity (hole). Fluoride can not only slow down the demineralization of the enamel but can also remineralize it. The first stage of the caries process is the white spot which can be found at the juncture of the tooth and the gum line of the lateral and central maxillary primary incisors. The white spot can be reversed and remineralized if exposed to FV, thus obviating the need to either pull the tooth or drill and fill it. The described outcome of this measurement project is that the provider (PCMP or clinic) of primary care services to children will offer CPI as part of the EPSDT examination. That intervention includes: a gross oral examination with referral to a dentist if there is a suggestion of pathology, a paper-and-pencil risk assessment to separate the high-risk from the low-risk (a child who is on Medicaid with no dental home is high-risk with no need to ask other questions), anticipatory guidance to the caregiver about caries etiology and the caregiver's role in prevention, application of FV according to ADA recommendations, and advising the caregiver that FV is not a substitute for regular comprehensive dental care so a dental home should be found for the child by the child's first birthday.

Fluoride (fluoridated water) has been shown to reduce the caries rate by 70% across the entire population. Today, the caries burden is borne primarily by high-risk Medicaid/CHIP-eligible children who cannot gain access to dental care. In a state such as Minnesota, where the public water supply is 98.6% fluoridated, both the Medicaid/CHIP-eligible children who represent 30% of the population carry 80% of the disease burden. Presumptively, the dental office not only provides fluoride to the child but also provides

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anticipatory guidance to the caregiver. PCMP traditionally have not been trained to address oral health issues because, until the mid-nineties, dentists across the country were seeing all children. It has only been in the last 15 years that dentists nation-wide have generally declined to take Medicaid/CHIP-eligible children. The ultimate outcome of this measurement project is reduction of caries. That, however, is a long-term consequence of CPI. The more immediate outcome is to show that across all practices which serve children, all high-risk children are, as part of the EPSDT examination, getting FV applied quarterly pursuant to ADA recommendations starting from the age of the eruption of the first tooth, or by age one. **1c.2-3. Type of Evidence:** Other Number of EPSDT examinations done without FV as part of well-child care (claims data) **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:**	
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-specs** **C☐** **P☐**

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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*):
The number of EPSDT examinations done with FV.

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

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*):
Application of FV is identified by a discrete code. The measurement will be based on clinic data (the ICD-9 code for the EPSDT examination (99381, 99382, 99391, 99392) and D-1206, the code for FV); both are billed on the same CMS-1500 medical billing form. From these data it will be possible to know, by billing entity, the percent of EPSDT examinations that included FV and, by including the patient's discrete participant number, the number of FV applications (and the dates of those applications) provided to the high-risk child annually. If proven to be useful, the process will be promoted to the Medicaid programs of the 43 states that, as of 12/1/10, are reimbursing PCMP for applying FV to the teeth of high-risk (Medicaid/CHIP-enrolled) children as part of the EPSDT examination. Each of the 43 state Medicaid programs which are currently reimbursing PCMP for CPI has identified a specific code to reflect FV application. The code can be used as part of either an ESPDT examination or an episodic visit. All but three states (FL, TX, UT) use the dental CDT code, D-1206, or its predecessor, D-1203. The three use a recognized and approved medical CPT code (FL: 99499 with SC modifier, TX: 99429 with U5 modifier and ICD-9 EPSDT code, UT: EP modifier added to appropriate ICD-9 EPSDT code).

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*):
All high-risk children (Medicaid/CHIP-eligible) who receive an EPSDT examination from a provider (PCMP or clinic).

2a.5 Target population gender: Female, Male
2a.6 Target population age range: 0-20 (upper end varies by state) see attachment.

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

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*):
All but three states use the dental CDT code for FV application (2a.3 above). Payors have adjusted their computers to recognize the CDT dental code when billed on the CMS-1500 medical billing form. In Minnesota, DHS for the first time generated a report in 2008 which shows by provider (PCMP or clinic) (whichever holds the billing provider number) the number of duplicated and unduplicated EPSDT examinations done, and the number of FV applications performed (unduplicated and duplicated) as part of the EPSDT examination. The data are broken down by age group (0-5 years, 6-12 years, 13-20 years). Aggregate data for 2009 and the first six months of 2010 are shown above 1b.2.

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*):
The data are broken down by age group (0-5 years; 6-12 years; 13-20 years)

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:
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***):**
NA

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

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)*:
NA

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Electronic administrative data/claims

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.***):**
In every state, claims data reflecting the EPSDT examination and FV application are reported by provider to payor and from payor to each state´s Department of Human Services. Payors have adjusted their computers to recognize the CDT dental code when billed on the CMS-1500 medical billing form. Minnesota's use of the claims data are described above as is the use to which those data will be used for this project.

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 : Group, Clinicians : Individual, Facility/Agency, Health Plan, Population : National

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

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

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)***:** All children (0-20 years of age) in the state of Minnesota who, according to DHS claims data, had, during the course of the preceding year, an EPSDT examination and whether that examination included FV. In all 43 states that are reimbursing for CPI, the FV reimbursement is over and above the reimbursement for the EPSDT examination. All data will be claims data. To date, only the 2008 and 2009 reports allow a view of what each provider/clinic that bills for EPSDT examination has done in the way of FV application as part of the EPSDT examination. The report generated in late 2011 will allow comparisons between 2008, 2009, and 2010 to see if providers are doing a better job, or not, in offering CPI as part of the EPSDT examination. To test reliability, a review is underway in which EPSDT/FV data from Hennepin County Medical Center for the period 9/1/09 – 3/31/10, as reported by DHS and by the Hospital, are being compared. If there is discrepancy between the numbers, an analysis from the Hospital's perspective will be conducted to determine at what level errors occurred: did the PCMP complete the billing form correctly; did the billing data entry person include all codes when preparing the bills to be sent to the payors; did the payor report the complete data set to DHS; did DHS enter all the data sent to it.

2b.2 Analytic Method *(type of reliability & rationale, method for testing)***:**

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2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*: NA	
2c. Validity testing **2c.1 Data/sample** *(description of data/sample and size)*: See 2b.1 above **2c.2 Analytic Method** *(type of validity & rationale, method for testing)*: NA **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):** NA **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** C☐ P☐ M☐

2g.2 Analytic Method *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	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*): **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***):** **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)*: **3a.5 Methods** *(e.g., focus group, survey, QI project)*: **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.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?** 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*) 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?** **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.** Claims data are only as accurate as 1) the PCMP is in recording on the billing form the services provided to the patient; 2) the data entry person is in entering the billing form information into the electronic process that creates the bill to the payor; 3) the payor is in bundling patient-specific information in an electronic report to DHS and; 4) the DHS staff person is in compiling the DHS report from payor reports. Because clinics today are highly focused on maximizing revenue, most have staff whose sole responsibility it is to capture on the bill all the services provided and to make sure that what is recorded on the billing form accurately reflects the services provided as noted in the medical record.	**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*)**:** None. Data will be entirely based on claims data. **4e.3 Evidence for costs:** NA **4e.4 Business case documentation:** NA	**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** University of Minnesota, 1729 Morgan Ave S, Minneapolis, Minnesota, 55405 **Co.2 Point of Contact** Amos , Deinard, MD, MPH, dein001@umn.edu, 612-377-1020-	
Measure Developer If different from Measure Steward **Co.3 Organization** University of Minnesota, 1729 Morgan Ave S, Minneapolis, Minnesota, 55405 **Co.4 Point of Contact** Amos , Deinard, MD, MPH, dein001@umn.edu, 612-377-1020-	
Co.5 Submitter If different from Measure Steward POC Amos , Deinard, MD, MPH, dein001@umn.edu, 612-377-1020-, University of Minnesota	
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.** NA	

Ad.2 If adapted, provide name of original measure: Application of FV as part of the C&TC examination in Minnesota to prevent caries in high-risk children **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: URL http://www.meded.umn.edu/apps/pediatrics/FluorideVarnish/index.cfm
Date of Submission (*MM/DD/YY*)**:** 12/09/2010