



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 1391

Corresponding Measures:

De.2. Measure Title: Frequency of Ongoing Prenatal Care (FPC)

Co.1.1. Measure Steward: National Committee for Quality Assurance

De.3. Brief Description of Measure: Percentage of Medicaid deliveries between November 6 of the year prior to the measurement year and November 5 of the measurement year that received the following number of expected prenatal visits:

- <21 percent of expected visits
- 21 percent–40 percent of expected visits
- 41 percent–60 percent of expected visits
- 61 percent–80 percent of expected visits
- > or =81 percent of expected visits

1b.1. Developer Rationale: Research indicates that early, comprehensive prenatal care and consistent visits throughout pregnancy can promote healthier pregnancies and reduce the risk of costly, adverse birth outcomes. This measure ensures that perinatal care occurs and in a timely and consistent fashion.

S.4. Numerator Statement: Women who had an unduplicated count of <21 percent, 21 percent–40 percent, 41 percent–60 percent, 61 percent–80 percent or > or =81 percent of the number of expected visits, adjusted for the month of pregnancy at time of enrollment and gestational age.

S.7. Denominator Statement: Medicaid deliveries between November 6 of the year prior to the measurement year and November 5 of the measurement year.

S.10. Denominator Exclusions: Exclude non-live births

De.1. Measure Type: Process

S.23. Data Source: Claims, Electronic Health Records, Paper Medical Records

S.26. Level of Analysis: Health Plan, Integrated Delivery System

IF Endorsement Maintenance – Original Endorsement Date: Aug 15, 2011 **Most Recent Endorsement Date:** Aug 15, 2011

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? None

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

1391_Evidence_MSF5.0_Data-635278481500031458.doc

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure)

Research indicates that early, comprehensive prenatal care and consistent visits throughout pregnancy can promote healthier pregnancies and reduce the risk of costly, adverse birth outcomes. This measure ensures that perinatal care occurs and in a timely and consistent fashion.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

Despite great national wealth, the U.S. continues to rank poorly relative to other industrialized nations on infant mortality and other birth outcomes, and with wide inequities by race/ethnicity. Across all years, about 60% of community health centers (CHC) mothers received first-trimester prenatal care and more than 70% received postpartum and newborn care.

In a study on the effects of pregnancy and childbirth, mothers' lack of knowledge about postpartum health was the main finding (Kline, Martin, & Deyo, 1998).

In addition, NCQA's HEDIS measure has shown that performance among health plans is low. The rate for timeliness of prenatal care was 81.37% in 2007; and the rate for postpartum care was just 58.6%.

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

Kline C. R, Martin D. P, Deyo R. A. Health consequences of pregnancy and childbirth as perceived by women and clinicians. *Obstetrics and Gynecology*. 1998;92:842–848.

Gaynes B. N, Gavin N, Meltzer-Brody S, Lohr K. N, Swinson T, Gartlehner G. 2005. Perinatal depression: Prevalence, screening, accuracy, and screening outcomes (AHRQ Publication No. 05-E006-1). et al. Rockville, MD: Agency for Healthcare Research Quality.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. (This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

In the United States, substantial racial/ethnic disparities exist in birth outcomes. As of 2002, the infant mortality rate for blacks (13.5 per 1,000 live births) was more than 2.5 times that of whites (5.7 per 1,000), Hispanics (5.4 per 1,000), and Asians (4.7 per 1,000) (Arias et al. 2003). Black infants were about twice as likely to be delivered low birth weight (LBW) (13.3%) as whites (6.9%) and Hispanics (6.5%); and black infants (17.5%) were more likely to be delivered preterm than either Hispanics (11.6%) or whites (11.0%). Both LBW and preterm birth have been associated with increased risks of infant mortality, and developmental disabilities such as mental retardation and cerebral palsy.

Substantial racial/ethnic disparities also persist in the receipt of prenatal care that has been associated with better birth outcomes (Ickovics et al. 2003;). In 2002, blacks (75%) and Hispanics (77%) were less likely than whites (89%) and Asian/Pacific Islanders (85%) to receive prenatal care in the first trimester (Martin et al. 2003). Similarly, receipt of adequate prenatal care (defined by the Revised-Graduated Index of Prenatal Care Utilization) was reported by 57% of whites and 51% of blacks (Alexander, Kogan, and Nabukera 2002). Despite these differences, other studies have challenged the effectiveness of prenatal care in reducing disparities in birth outcomes due to the strength of other, more difficult to address, factors such as social class and hereditary risks (Lu and Halfon 2003; Lu et al. 2003;).

Maximizing access to prenatal care is a key element of public health strategy to improve the early initiation and appropriate utilization of prenatal care to improve pregnancy outcomes. Utilization of prenatal care is known to vary cross-sectionally by

sociodemographic characteristics, notably race/ethnicity, education, age, and marital status (Braverman P,2000).

Contemporary policy thinking about access to health care typically focuses on gaps in health insurance, other economic and transportation barriers, and lack of information as impediments to utilizing care (Frisbie WP, 2001). While some of these factors are persistent over a woman's life, others such as familiarity with prenatal services change in regular or random patterns.

Psychosocial factors may also delay initiation of care, undermine adherence to the standard schedule of visits, or both (Sarnoff R, 2001). For example, women in some sociodemographic groups may be more inclined to find the organization of services to be impersonal or threatening, and the content of services to be unresponsive to their concerns and ordinary mode of life (Pagnini DL, 2000). Some of these attitudinal factors may have a consistent impact on prenatal care throughout the lifetimes of such women. Others may, however, be responses to experience from earlier pregnancies.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

Alexander,G. R., M. D. Kogan, and S. Nabukera. 2002. "Racial Differences in Prenatal Care Use in the United States: Are Disparities Decreasing?" American Journal of Public Health 92 (12): 1970–5.

Arias, E., M. F. MacDorman, D. M. Strobino, and B. Guyer. 2003. "Annual Summary of Vital Statistics—2002." Pediatrics 112 (6, Part 1): 1215–30.

Ickovics, J. R., T. S. Kershaw, C. Westdahl, S. S. Rising, C. Klima, H. Reynolds, and U. Magriples. 2003. "Group Prenatal Care and Preterm Birth Weight: Results from a Matched Cohort Study at Public Clinics." Obstetrics and Gynecology 102 (5, Part 1): 1051–57.

Lu, M. C., and N. Halfon. 2003. "Racial and Ethnic Disparities in Birth Outcomes: A Life-Course Perspective." Maternal and Child Health Journal 7 (1): 13–30.

Martin, J. A., B. E. Hamilton, P. D. Sutton, S. J. Ventura, F. Menacker, and M. L. Munson. 2003. "Births: Final Data for 2002." National Vital Statistics Reports 52 (10): 1–113.

Lu, M. C., V. Tache, G. R. Alexander, M. Kotelchuck, and N. Halfon. 2003. "Preventing Low Birth Weight: Is Prenatal Care the Answer?" Journal of Maternal- Fetal and Neonatal Medicine 13 (6): 362–80.

1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Affects large numbers, Frequently performed procedure, A leading cause of morbidity/mortality, High resource use, Severity of illness, Patient/societal consequences of poor quality

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

Each year, about four million women give birth in the United States. While many women experience normal pregnancies without problems, about one million women have one or more complications during pregnancy, labor and delivery, or postpartum period. Studies indicate that as many as half of all deaths from pregnancy complications could be prevented if women had better access to health care, better quality of care, and changed their health and lifestyle habits (CDC, 2002). Women who receive prenatal care late in their pregnancy or who do not receive any care are at increased risk of bearing infants who are low birth weight, stillborn or who die within the first year of life (National Center for Health Statistics, 2010).

The impact of pregnancy complications on health care costs is considerable. Pregnancy complications before delivery account for more than two million hospital days of care and over one billion dollars each year in the U.S. (CDC, 2002). One driver of excessive

maternity costs is premature babies, or babies born before the 37th week. Preterm/low birth weight infants in the United States account for half of infant hospitalization costs and one-quarter of pediatric costs. Costs for these preterm/low birth weight admissions totaled \$5.8 billion, representing 47 percent of the costs for all infant hospitalizations and 27 percent of the cost for all pediatric stays. The average cost associated with preterm/low birth weight infant hospital stays is \$15,100 and the average length of stay is 12.9 days. Conversely, for uncomplicated newborns, the average hospital stay is approximately \$600 and 1.9 days. The study lead by Russell found that costs were highest for extremely preterm infants (<28 weeks' gestation/birth weight <1000 g), on average \$65,600. Often times the costs are associated with respiratory-related complications. (Rebecca B. Russell, 2007)

1c.4. Citations for data demonstrating high priority provided in 1a.3

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Safe Motherhood: Promoting Health for Women Before, During and After Pregnancy. March 2002.
www.cdc.gov/nccdphp/drh/mh_ataglance.htm

National Center for Health Statistics, Division of Vital Statistics, DHS; Summary Health Statistic for U.S. Children: National Health Interview Survey, 2009. Vintzileos, A, Ananth, C, Smulian, JC, Scorza, WE, Knuppel, RA. The impact of prenatal care on postneonatal deaths in the presence and absence of antenatal high-risk conditions. Am J Obstet Gynecol November 2002; 187(5):1258-1262.

American Academy of Pediatrics and The American College of Obstetricians and Gynecologists. Guidelines for Perinatal Care (5th Edition). October 2002.

Pennsylvania Health Care Cost Containment Council. Promoting Maternal Health in the Workplace. PHC4 FYI, Issue No. 21. December 2003.

Rebecca B. Russell, Nancy S. Green, Claudia A. Steniner, Susan Meikle. Cost of Hospitalization for Preterm and Low Birth Weight Infants in the United States. PEDIATRICS Vol. 120 No. 1 July 2007, pp. e1-e9 (doi:10.1542/peds.2006-2386)

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):
[Perinatal Health](#)

De.6. Non-Condition Specific (check all the areas that apply):

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

[This is not an eMeasure](#) Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment:

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

Women who had an unduplicated count of <21 percent, 21 percent–40 percent, 41 percent–60 percent, 61 percent–80 percent or > or =81 percent of the number of expected visits, adjusted for the month of pregnancy at time of enrollment and gestational age.

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

The measurement year (12 month period).

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

ADMINISTRATIVE

Women who had an unduplicated count of <21 percent, 21 percent–40 percent, 41 percent–60 percent, 61 percent–80 percent or >/=81 percent of the number of expected visits, adjusted for the month of pregnancy at time of enrollment and gestational age.

Step 1 Identify the delivery date using hospital discharge data.

Step 2 Identify the date when the patient enrolled in the organization and determine the stage of pregnancy at time of enrollment. If the patient has gaps in enrollment during pregnancy, use the last enrollment segment to determine continuous enrollment in the organization. For patients with a gap in enrollment any time during pregnancy (including a gap in the first trimester), the last enrollment segment is the enrollment start date during the pregnancy that is closest to the delivery date.

Use the following approach (or an equivalent method) to calculate the stage of pregnancy at time of enrollment. If gestational age is not available, assume a gestational age of 280 days (40 weeks).

- Convert gestational age into days.
- Subtract gestational age (in days) from the date of delivery (step 1).
- Subtract the date obtained above from the date when the patient enrolled in the organization to determine the stage of pregnancy at time of enrollment.
- Divide the numbers of days the patient was pregnant at enrollment (step 3) by 30. Round the resulting number according to the .5 rule to a whole number.

For example, delivery date is August 8, 2010; gestational age is 33 weeks; date of enrollment is May 6, 2010. Given these variables, the process is:

- Gestational age in days is 231 days (33 weeks x 7 days/week).
 - Date of delivery – gestational age (in days) is December 22, 2009 (August 8, 2009 – 231 days).
 - Date when the patient enrolled in the organization – date obtained in step 2 is 135 days (May 6, 2010 – December 22, 2009).
 - Month in which prenatal care began is 4.5 months (135 days/30 days) and then round up to 5 months using the 0.5 rule.
- This patient's stage of pregnancy at time of enrollment is 5 months.

Step 3 Use Table FPC-A to find the number of recommended prenatal visits by gestational age and stage of pregnancy at time of enrollment per the American College of Obstetricians and Gynecologists (ACOG). The chart subtracts the number of missed visits prior to the date the patient enrolled from the number of recommended visits for a given gestational age.

ACOG recommends that women with an uncomplicated pregnancy receive visits every 4 weeks for the first 28 weeks of pregnancy, every 2–3 weeks until 36 weeks of pregnancy, and weekly thereafter. For example, ACOG recommends 14 visits for a 40-week pregnancy. If the patient enrolled during her fourth month (3 missed visits prior to enrollment in the organization), the expected number of visits is $14 - 3 = 11$.

For deliveries with a gestational age <28 weeks or >42 weeks, calculate the expected number of prenatal care visits using the date when the patient enrolled and ACOG's recommended schedule of visits. For example, if gestational age is 26 weeks and the patient enrolled during her second month of pregnancy, the expected number of prenatal care visits is 5 (6 expected visits [1 visit every 4 weeks or 6 visits in 24 weeks], less 1 visit missed in the first month).

If gestational age is 44 weeks and the patient enrolled during her third month of pregnancy, the expected number of prenatal care visits is 16 (14 expected visits for a 40-week gestation plus 1 visit each additional week [18 total expected prenatal care visits], less 2 visits missed in the first and second months).

Step 4 Identify the number of prenatal care visits the patient received during the course of her pregnancy and while enrolled in the organization using claims and encounter data.

To identify prenatal visits that occurred during the first trimester, refer to the Prenatal and Postpartum Care measure decisions rules for Identifying Prenatal Care For Women Continuously Enrolled During the First Trimester.

To identify prenatal visits that occurred during the second and third trimester, refer to the prenatal and postpartum care measure instructions for Identifying Prenatal Care For Women Not Continuously Enrolled During the First Trimester. Visits that occur on the date of delivery and meet the prenatal visit criteria count toward the measure.

All criteria must be met for encounters to be counted as a discrete prenatal care visit. For example, Decision Rules 2 and 3 require multiple components (typically a visit combined with a diagnosis code or another prenatal service such as a lab test or an ultrasound). Ultrasound and lab results alone are not considered a discrete prenatal care visit unless they are combined with other criteria.

Services that occur over multiple visits can be combined to create a discrete prenatal care visit if all services occur within the time frame established in the measure and services are not double counted. Organizations must develop systems to avoid double counting. For example, a code from the Stand Alone Prenatal Visits Value Set on the same date of service as a code from the Prenatal Visits Value Set is interpreted to represent a single visit/encounter and should not be counted twice. If the member had (See corresponding Excel document for the Stand Alone Prenatal Visits Value Set and the Prenatal Visits Value Set)

Step 5 Calculate the ratio of observed visits (step 4) over expected visits (step 3).

Step 6 Report each woman in the appropriate category.

- <21 percent
- 21 percent–40 percent
- 41 percent–60 percent
- 61 percent–80 percent
- > or =81 percent of expected visits

MEDICAL RECORD

Women who had an unduplicated count of the number of expected visits that was <21 percent, 21 percent–40 percent, 41 percent–60 percent, 61 percent–80 percent or >=81 percent of the number of expected visits, adjusted for the month of pregnancy at time of enrollment and gestational age. The visits may be identified through either administrative data or medical record review.

The numerator is calculated retroactively from date of delivery or EDD.

Identify gestational age at birth from the hospital record (e.g., admission write-ups, histories and physicals, discharge summaries or labor and delivery records) or birth certificate. Gestational age is the number of completed weeks that elapsed between the first day of the last normal menstrual period and the date of delivery. If gestational age is not available, assume a gestational age of 280 days (40 weeks).

Methods recommended to determine gestational age are:

- Physician ascertainment using ultrasound or Dubowitz assessment.
- Last menstrual period (LMP) calculation (date of LMP – date of delivery) ÷ 7. If gestational age is recorded or calculated in fractions of a week, round down to the lower whole number.

TABLE FPC-A - Expected Number of Prenatal Care Visits for a Given Gestational Age and Month Member Enrolled in the Organization

(Gestational age in weeks/Month of Pregnancy patient enrolled in the organization/number of expected visits)

28 weeks/0-1st month/6 visits
28 weeks/2nd month/5 visits
28 weeks/3rd month/4 visits
28 weeks/4th month/3 visits
28 weeks/5th month/1 visit
28 weeks/6th month/1 visit
28 weeks/7th month/0 visits
28 weeks/8th month/0 visits
28 weeks/9th month/0 visits

29 weeks/0-1st month/6 visits
29 weeks/2nd month/5 visits
29 weeks/3rd month/4 visits
29 weeks/4th month/3 visits
29 weeks/5th month/1 visit
29 weeks/6th month/1 visit
29 weeks/7th month/0 visits
29 weeks/8th month/0 visits
29 weeks/9th month/0 visits

30 weeks/0-1st month/7 visits
30 weeks/2nd month/6 visits
30 weeks/3rd month/5 visits
30 weeks/4th month/4 visits
30 weeks/5th month/2 visit
30 weeks/6th month/1 visit
30 weeks/7th month/1 visits
30 weeks/8th month/0 visits
30 weeks/9th month/0 visits

31 weeks/0-1st month/7 visits
31 weeks/2nd month/6 visits
31 weeks/3rd month/5 visits
31 weeks/4th month/4 visits
31 weeks/5th month/2 visit
31 weeks/6th month/1 visit
31 weeks/7th month/1 visits
31 weeks/8th month/0 visits
31 weeks/9th month/0 visits

32 weeks/0-1st month/8 visits
32 weeks/2nd month/7 visits
32 weeks/3rd month/6 visits
32 weeks/4th month/5 visits
32 weeks/5th month/3 visit
32 weeks/6th month/2 visit
32 weeks/7th month/1 visits
32 weeks/8th month/0 visits
32 weeks/9th month/0 visits

33 weeks/0-1st month/8 visits
33 weeks/2nd month/7 visits
33 weeks/3rd month/6 visits
33 weeks/4th month/5 visits
33 weeks/5th month/3 visit
33 weeks/6th month/2 visit
33 weeks/7th month/1 visits
33 weeks/8th month/0 visits
33 weeks/9th month/0 visits

34 weeks/0-1st month/9 visits
34 weeks/2nd month/8 visits
34 weeks/3rd month/7 visits
34 weeks/4th month/6 visits
34 weeks/5th month/4 visit
34 weeks/6th month/3 visit
34 weeks/7th month/2 visits
34 weeks/8th month/1 visits
34 weeks/9th month/0 visits

35 weeks/0-1st month/9 visits
35 weeks/2nd month/8 visits
35 weeks/3rd month/7 visits
35 weeks/4th month/6 visits
35 weeks/5th month/4 visit
35 weeks/6th month/3 visit
35 weeks/7th month/2 visits
35 weeks/8th month/1 visits
35 weeks/9th month/0 visits

36 weeks/0-1st month/10 visits
36 weeks/2nd month/9 visits
36 weeks/3rd month/8 visits
36 weeks/4th month/7 visits
36 weeks/5th month/5 visit
36 weeks/6th month/4 visit
36 weeks/7th month/3 visits
36 weeks/8th month/1 visits
36 weeks/9th month/0 visits

37 weeks/0-1st month/11 visits
37 weeks/2nd month/10 visits
37 weeks/3rd month/9 visits
37 weeks/4th month/8 visits
37 weeks/5th month/6 visit

37 weeks/6th month/5 visit
37 weeks/7th month/4 visits
37 weeks/8th month/2 visits
37 weeks/9th month/0 visits

38 weeks/0-1st month/12 visits
38 weeks/2nd month/11 visits
38 weeks/3rd month/10 visits
38 weeks/4th month/9 visits
38 weeks/5th month/7 visit
38 weeks/6th month/6 visit
38 weeks/7th month/5 visits
38 weeks/8th month/3 visits
38 weeks/9th month/0 visits

39 weeks/0-1st month/13 visits
39 weeks/2nd month/12 visits
39 weeks/3rd month/11 visits
39 weeks/4th month/10 visits
39 weeks/5th month/8 visit
39 weeks/6th month/7 visit
39 weeks/7th month/6 visits
39 weeks/8th month/4 visits
39 weeks/9th month/1 visits

40 weeks/0-1st month/14 visits
40 weeks/2nd month/13 visits
40 weeks/3rd month/12 visits
40 weeks/4th month/11 visits
40 weeks/5th month/9 visit
40 weeks/6th month/8 visit
40 weeks/7th month/7 visits
40 weeks/8th month/5 visits
40 weeks/9th month/1 visits

41 weeks/0-1st month/15 visits
41 weeks/2nd month/14 visits
41 weeks/3rd month/13 visits
41 weeks/4th month/12 visits
41 weeks/5th month/11 visit
41 weeks/6th month/9 visit
41 weeks/7th month/8 visits
41 weeks/8th month/6 visits
41 weeks/9th month/2 visits

42 weeks/0-1st month/16 visits
42 weeks/2nd month/15 visits
42 weeks/3rd month/14 visits
42 weeks/4th month/13 visits
42 weeks/5th month/11 visit
42 weeks/6th month/10 visit
42 weeks/7th month/9 visits
42 weeks/8th month/7 visits
42 weeks/9th month/3 visits

43 weeks/0-1st month/17 visits
 43 weeks/2nd month/16 visits
 43 weeks/3rd month/15 visits
 43 weeks/4th month/14 visits
 43 weeks/5th month/12 visit
 43 weeks/6th month/11 visit
 43 weeks/7th month/10 visits
 43 weeks/8th month/8 visits
 43 weeks/9th month/4 visits

S.7. Denominator Statement *(Brief, narrative description of the target population being measured)*

Medicaid deliveries between November 6 of the year prior to the measurement year and November 5 of the measurement year.

S.8. Target Population Category *(Check all the populations for which the measure is specified and tested if any):*

Children, Women

S.9. Denominator Details *(All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

Delivered a live birth on or between November 6 of the year prior to the measurement year and November 5 of the measurement year.

Women who delivered in a birthing center should be included in this measure.

Multiple births. Women who had two separate deliveries (different dates of service) between November 6 of the year prior to the measurement year and November 5 of the measurement year should count twice. Women who had multiple live births during one pregnancy should be counted once in the measure.

Identify deliveries. Identify all women with a delivery between November 6 of the year prior to the measurement year and November 5 of the measurement year. Either of the following meets criteria:

- A delivery (Deliveries Value Set).
- A delivery on an infant claim (Deliveries Infant Record Value Set), where the organization can link infant and mother records.

(See corresponding Excel document for the Deliveries Value Set and the Deliveries Infant Record Value Set)

S.10. Denominator Exclusions *(Brief narrative description of exclusions from the target population)*

Exclude non-live births

S.11. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

See corresponding Excel document for the Non-live Births Value Set

S.12. Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)*

None

S.13. Risk Adjustment Type *(Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)*

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)*

NA

S.15. Detailed risk model specifications (must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications (if not provided in excel or csv file at S.2b)

S.16. Type of score:

Rate/proportion

If other:

S.17. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.18. Calculation Algorithm/Measure Logic (Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)

Step 1: Identify all women with a delivery between November 6 of the year prior to the measurement year and November 5 of the measurement year.

Step 2: Exclude non-live births

Step 3: Identify the delivery date using hospital discharge data.

Step 4: Identify the date when the patient enrolled in the organization and determine the stage of pregnancy at time of enrollment. If the patient has gaps in enrollment during pregnancy, use the last enrollment segment to determine continuous enrollment in the organization. For patients with a gap in enrollment any time during pregnancy (including a gap in the first trimester), the last enrollment segment is the enrollment start date during the pregnancy that is closest to the delivery date.

Use the following approach (or an equivalent method) to calculate the stage of pregnancy at time of enrollment. If gestational age is not available, assume a gestational age of 280 days (40 weeks).

- Convert gestational age into days.
- Subtract gestational age (in days) from the date of delivery (step 1).
- Subtract the date obtained above from the date when the patient enrolled in the organization to determine the stage of pregnancy at time of enrollment.
- Divide the numbers of days the patient was pregnant at enrollment (step 3) by 30. Round the resulting number according to the .5 rule to a whole number.

For example, delivery date is August 8, 2010; gestational age is 33 weeks; date of enrollment is May 6, 2010. Given these variables, the process is:

- Gestational age in days is 231 days (33 weeks x 7 days/week).
 - Date of delivery – gestational age (in days) is December 22, 2009 (August 8, 2009 – 231 days).
 - Date when the patient enrolled in the organization – date obtained in step 2 is 135 days (May 6, 2010 – December 22, 2009).
 - Month in which prenatal care began is 4.5 months (135 days/30 days) and then round up to 5 months using the 0.5 rule.
- This patient's stage of pregnancy at time of enrollment is 5 months.

Step 5: Use Table FPC-A to find the number of recommended prenatal visits by gestational age and stage of pregnancy at time of enrollment per the American College of Obstetricians and Gynecologists (ACOG). The chart subtracts the number of missed visits prior to the date the patient enrolled from the number of recommended visits for a given gestational age.

ACOG recommends that women with an uncomplicated pregnancy receive visits every 4 weeks for the first 28 weeks of pregnancy, every 2–3 weeks until 36 weeks of pregnancy, and weekly thereafter. For example, ACOG recommends 14 visits for a 40-week pregnancy. If the patient enrolled during her fourth month (3 missed visits prior to enrollment in the organization), the expected number of visits is $14 - 3 = 11$.

For deliveries with a gestational age <28 weeks or >42 weeks, calculate the expected number of prenatal care visits using the date when the patient enrolled and ACOG's recommended schedule of visits. For example, if gestational age is 26 weeks and the patient enrolled during her second month of pregnancy, the expected number of prenatal care visits is 5 (6 expected visits [1 visit every 4 weeks or 6 visits in 24 weeks], less 1 visit missed in the first month).

If gestational age is 44 weeks and the patient enrolled during her third month of pregnancy, the expected number of prenatal care visits is 16 (14 expected visits for a 40-week gestation plus 1 visit each additional week [18 total expected prenatal care visits], less 2 visits missed in the first and second months).

Step 6: Identify the number of prenatal care visits the patient received during the course of her pregnancy and while enrolled in the organization using claims and encounter data.

To identify prenatal visits that occurred during the first trimester, refer to the Prenatal and Postpartum Care measure decisions rules for Identifying Prenatal Care For Women Continuously Enrolled During the First Trimester.

To identify prenatal visits that occurred during the second and third trimester, refer to the prenatal and postpartum care measure instructions for Identifying Prenatal Care For Women Not Continuously Enrolled During the First Trimester. Visits that occur on the date of delivery and meet the prenatal visit criteria count toward the measure.

All criteria must be met for encounters to be counted as a discrete prenatal care visit. For example, Decision Rules 2 and 3 require multiple components (typically a visit combined with a diagnosis code or another prenatal service such as a lab test or an ultrasound). Ultrasound and lab results alone are not considered a discrete prenatal care visit unless they are combined with other criteria.

Services that occur over multiple visits can be combined to create a discrete prenatal care visit if all services occur within the time frame established in the measure and services are not double counted. Organizations must develop systems to avoid double counting. For example, a code from the Stand Alone Prenatal Visits Value Set on the same date of service as a code from the Prenatal Visits Value Set is interpreted to represent a single visit/encounter and should not be counted twice. If the member had (See corresponding Excel document for the Stand Alone Prenatal Visits Value Set and the Prenatal Visits Value Set)

Step 7: Calculate the ratio of observed visits (step 6) over expected visits (step 5).

Step 8: Report each woman in the appropriate category.

- <21 percent
- 21 percent–40 percent
- 41 percent–60 percent
- 61 percent–80 percent
- > or =81 percent of expected visits

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.20. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

A systematic sample of members drawn from the eligible population. Frequency of Ongoing Prenatal Care and Prenatal and Postpartum Care measures must use the same systematic sample for both. The organization may reduce the sample size using the current year's lowest product-line-specific administrative rate for the rate of women who received ≥ 81 percent of expected

prenatal care visits and the two rates from Prenatal and Postpartum Care. It may also use the prior year's lowest audited product-line-specific rates for the rate of women who received ≥ 81 percent of expected prenatal care visits and the two rates from Prenatal and Postpartum Care.

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

[Claims](#), [Electronic Health Records](#), [Paper Medical Records](#)

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

[Medical Record](#)

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

[Health Plan](#), [Integrated Delivery System](#)

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

[Outpatient Services](#)

If other:

S.28. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

[1391_MeasureTesting_MSF5.0_Data-635278481500031458.doc](#)

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition, Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)

No

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

NCQA may eventually specify this measure for electronic health records.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.

Based on field test results, we have specified the measure to assess whether visit occurred.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Planned	Current Use (for current use provide URL)
Public Reporting	
Quality Improvement (Internal to the specific organization)	

4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor

- Purpose
- Geographic area and number and percentage of accountable entities and patients included

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4c. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

All measures that are used in NCQA programs are audited.

5. Comparison to Related or Competing Measures

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

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

1517 : Prenatal & Postpartum Care (PPC)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.
<p>5a. Harmonization The measure specifications are harmonized with related measures; OR The differences in specifications are justified</p> <p>5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s): Are the measure specifications completely harmonized?</p> <p>5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.</p>
<p>5b. Competing Measures The measure is superior to competing measures (e.g., is a more valid or efficient way to measure); OR Multiple measures are justified.</p> <p>5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s): Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)</p>

Appendix
<p>A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.</p> <p>Attachment:</p>
Contact Information
<p>Co.1 Measure Steward (Intellectual Property Owner): National Committee for Quality Assurance Co.2 Point of Contact: Bob, Rehm, nqf@ncqa.org, 202-955-1728- Co.3 Measure Developer if different from Measure Steward: National Committee for Quality Assurance Co.4 Point of Contact: Jill Marie, Farrell, farrell@ncqa.org, 202-955-1785-</p>
Additional Information
<p>Ad.1 Workgroup/Expert Panel involved in measure development 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</p>

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Dorothy Mann, PhD, MPH
Consultant
Robert H. Pantell, MD
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Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 1997

Ad.3 Month and Year of most recent revision: 07, 2010

Ad.4 What is your frequency for review/update of this measure? Annual

Ad.5 When is the next scheduled review/update for this measure? 07, 2011

Ad.6 Copyright statement: Frequency of Ongoing Prenatal Care:

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Prenatal and Postpartum Care:

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Ad.7 Disclaimers:

Ad.8 Additional Information/Comments: