NQF #1909 Medical Home System Survey (MHSS)

NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

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

NQF #: 1909 NQF Project: Care Coordination Project
(for Endorsement Maintenance Review) Original Endorsement Date: Most Recent Endorsement Date:
BRIEF MEASURE INFORMATION
De.1 Measure Title: Medical Home System Survey (MHSS)
Co.1 Measure Steward: National Committee for Quality Assurance
De.2 Brief Description of Measure: The following 6 composites are generated from the Medical Home System Survey (MHSS). Each measure is used to assess a particular domain of the patient-centered medical home. Measure 1: Enhance access and continuity Measure 2: Identify and manage patient populations Measure 3: Plan and manage care Measure 4: Provide self-care support and community resources Measure 5: Track and coordinate care Measure 6: Measure and improve performance
2a1.1 Numerator Statement: The composite measures do not have a typical numerator. Each composite is composed of elements; each element is made up of individual factors. The composite score is calculated by adding the element scores. The element scores are based on the proportion of individual factors with a satisfactory "yes" response (see Specifications for details). Note: In the calculation algorithm, the measurement domains are termed "composites," the measures within each domain are referred to as "elements," and the items within a measure, or measure subcomponents, are referred to as "factors."
2a1.4 Denominator Statement: The target population is eligible outpatient primary care practices.
2a1.8 Denominator Exclusions: None
1.1 Measure Type: Composite 2a1. 25-26 Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry, Healthcare Provider Survey, Management Data, Other, Paper Records, Patient Reported Data/Survey 2a1.33 Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Clinician : Team 1.2-1.4 Is this measure paired with another measure? No De.3 If included in a composite, please identify the composite measure (*title and NQF number if endorsed*):

STAFF NOTES (*issues or questions regarding any criteria*)
Comments on Conditions for Consideration:
E.4 If component measures of the composite are aggregate-level measures, all must be either NQF-endorsed or submitted for consideration for NQF endorsement Some or all component measures are not NQF-endorsed and have been submitted using the online measure submission tool

Is the measure untested? Yes☐ No☐ If untested, explain how it meets criteria for consideration for time-limited endorsement:

1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*):
5. Similar/related endorsed or submitted measures (*check 5.1*):
Other Criteria:

Staff Reviewer Name(s):

1. IMPACT, OPPORTUITY, EVIDENCE - 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.
(composite measure evaluation criteria)

(for NQF staff use) Specific NPP goal:

1d.1 Describe the purpose/objective of the composite measure: The Medical Home System Survey (MHSS) is a survey instrument used to gather information from primary care providers and practices. This survey measures the proportion of factors (both structure and process) met by practices across six domains or composites. The score for each composite describes the degree to which a practice has implemented elements of the patient-centered medical home (PCMH). The MHSS survey is used by NCQA to determine eligibility for the NCQA Recognized PCMH program.
1d.2 Describe the quality construct used in developing the composite: The underlying quality construct used to develop this composite is the chronic care model (Wagner 2001). Elements of the chronic care model have been adapted to create the medical home concept. Early work on the medical home concept was done by pediatricians and focused on care of children with special needs. The medical home concepts were then further developed by a collaboration of the primary care physician societies—the American College of Physicians (ACP), the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP) and the American Osteopathic Association (AOA). These concepts were articulated in the 2007 Joint Principles of the Patient-Centered Medical Home and are reflected in NCQA's 2008 MHSS previously endorsed by NQF. These Joint Principles continue to serve as a foundation to the NCQA MHSS 2011. The MHSS 2011 survey builds on the success of the MHSS 2008 version to align closely with many specific elements of the federal program that rewards clinicians for using health information technology to improve quality (Center for Medicare and Medicaid Services Meaningful Use Requirements).

1e.1 Describe how the component measures/items are consistent with and representative of the quality construct: The composites in the MHSS are organized around the central components of the patient-centered medical home as defined by 2007 Joint Principles of the Patient Centered Medical Home and based on the empirical evidence for the chronic care model (Wagner 2001). Additionally, the 2011 revisions to the MHSS by NCQA attempted to align the MHSS measures with the Medicare & Medicaid Services (CMS) Meaningful Use (MU) requirements. Below is the summary of each composite measure and how the measure relates to the joint principles and MU requirements.

MHSS 1: Enhance access and continuity (Joint principle 1 – Continuity with a personal physician)
*Patients have access to culturally and linguistically appropriate routine/urgent care and clinical advice during and after office hours
*The practice provides electronic access (Stage 1 MU requirement)
*Patients may select a clinician
*The focus is on team-based care with trained staff

MHSS 2: Identify and manage patient populations (Joint principle 3 - Physician is responsible for providing al the patient's health care needs (whole person orientation))
*The practice collects demographic and clinical data for population management (Stage 1 MU requirement)
*The practice assesses and documents patient risk factors (Stage 1 MU requirement)
*The practice identifies patients for proactive reminders (Stage 1 MU requirement)

MHSS 3: Plan and Manage Care (Joint principle 3 - Physician is responsible for providing al the patient's health care needs (whole person orientation))

*The practice identifies patients with specific conditions, including high-risk or complex care needs and conditions related to health behaviors, mental health or substance abuse problems
*The practice emphasizes care management, including pre-visit planning, assessing patient progress toward treatment goals, and addressing patient barriers to treatment goals
*The practice reconciles patient medications at visits and post-hospitalization (Stage 1 MU requirement)
*The practice uses e-prescribing (Stage 1 MU requirement)

MHSS 4: Provide self-care support and community resources (Joint principle 3 - Physician is responsible for providing al the patient's health care needs (whole person orientation))
*The practice assesses patient/family self-management abilities
*The practice works with patient/family to develop a self-care plan and provide tools and resources, including community resources (Stage 1 MU requirement)
*Practice clinicians counsel patients on healthy behaviors
*The practice assesses and provides or arranges for mental health/substance abuse treatment

MHSS 5: Track and coordinate care (Joint principle 4 - Care is coordinated and integrated)
*The practice tracks, follows-up on and coordinates tests, referrals and care at other facilities (Stage 1 MU requirement)
*The practice manages care transitions (Stage 1 MU requirement)

MHSS 6: Measure and improve performance (Joint principle 5 - Quality and safety)
*The practice uses performance and patient experience data to continuously improve
*The practice tracks utilization measures such as rates of hospitalizations and ER visits
*The practice identifies vulnerable patient populations
*The practice demonstrates improved performance
*The practice reports data on performance externally (Stage 1 MU requirement)

References:

AAFP, AAP, ACP, AOA. Joint Principles of the Patient-Centered Medical Home. 2007 (Accessed January 2012) Available at: http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home

Centers for Medicare and Medicaid Services (CMS). Electronic Health Records and Meaningful Use. 2011 (Accessed January 2012) Available at: http://healthit.hhs.gov/portal/server.pt?open=512&objID=2996&mode=2

Wagner EH, Austin BT, David C, Hindmarsh M, Schaefer J, & Bonomi A. (2007) Improving Chronic Illness Care: Translating Evident into Action. Health Affairs. 20, 64-78.

If the component measures are combined at the patient level, complete 1a, 1b, and 1c.

If the component measures are combined at the aggregate level, skip to criterion 2, Scientific Acceptability of Measure Properties (individual measures are either NQF-endorsed or submitted individually).

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

De.4 **Subject/Topic Areas** (*Check all the areas that apply*):
De.5 **Cross Cutting Areas** (*Check all the areas that apply*): Access, Care Coordination, Infrastructure Supports, Infrastructure Supports : Health IT, Infrastructure Supports : System Capacity, Infrastructure Supports : Workforce, Patient and Family Engagement, Population Health

1a.1 **Demonstrated High Impact Aspect of Healthcare:** Affects large numbers, High resource use, Patient/societal consequences of poor quality

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

1a.3 **Summary of Evidence of High Impact** *(Provide epidemiologic or resource use data)*:
The number of individuals in the US with chronic conditions is growing at a rapid rate. However, our health care system is not designed to appropriately care for individuals with ongoing care needs. A new model of care is necessary which encompasses the core components of the chronic care model: the health system, self-management support, delivery system design, decision support and clinical information systems (Wagner 2001).

High Impact for Composite 1: Enhance Access and Continuity
Poor access to care is associated with negative outcomes, including more costly care, delays in diagnosis or treatment, poorer health outcomes, and premature death (see IOM 2003 and IOM 2001 for a review of the literature).

High Impact for Composites 2 and 3: Identify and mange patient populations and Plan and Manage Care
Many recommended preventive and chronic care services are provided as a low rate. Primary and secondary prevention of the leading causes of mortality is a national quality strategy priority. Increasing prevention of both primary and secondary conditions will improve the health of the population and reduce health care costs. Effectiveness studies consistently show that introducing guidelines to physicians has only a minimal impact on quality unless guidelines are integrated into the practice through education, reminders, specialist involvement, or other decision support interventions. (See Wagner 2001, DHHS 2011, IOM 2003 and NPP 2011 for review of the literature).

High Impact for Composite 4: Provide self-care support and community resources
Many chronically ill persons wrestle with the physical, psychological, and social demands of their illness without much help or support from medical care. More often, the help received, while well intentioned, fails to afford optimal clinical care or meet persons' needs to be effective self-managers of their illness (Wagner 2001).

High Impact for Composite 5: Track and coordinate care
Care coordination has been identified by the Institute of Medicine as one of the key strategies for improving the quality of care and reducing un-necessary health care spending (IOM 2001; 2003). Individuals with multiple chronic conditions are more likely to see multiple care providers (Pham 2007) and are more likely to experience the negative consequences of uncoordinated care (Bodenheimer 2008). From 2000-2002, the average Medicare beneficiary saw a median of two primary care physicians and five specialists; beneficiaries with a greater number of chronic conditions saw up to 16 physicians in a year (Pham 2007). When patients are cared for by multiple providers across different settings, there is an increased risk of duplicate testing (Smith 2005), adverse drug reactions and medical errors (Moore 2003), and conflicting care plans (Gandhi 2005).

High Impact for Composite 6: Measure and improve performance
The National Quality Strategy identifies continued quality improvement and public dissemination of performance data as a central principle of providing high quality health care (DHHS 2011). Practitioners and health plans need timely and actionable feedback to address gaps in care and improve quality. Standardized reporting of performance measures helps both consumers and practitioners evaluate the quality of care and respond accordingly (see NPP 2011, IOM 2003, and DHHS 2011 for review of literature).

1a.4 **Citations for Evidence of High Impact cited in 1a.3:** Institute of Medicine (IOM). Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academy Press, 2001.

Institute of Medicine (IOM). Committee on Identifying Priority Areas for Quality Improvement. Priority Areas for National Action: Transforming Health Care Quality. Washington DC: The National Academies Press, 2003.

Wagner EH, Austin BT, Davies C, Hindmarsh M, Schaefer J,and Bonomi A. Improving chronic illness care: translating evidence into action. Health Aff (Millwood) 2001;20:64-78.

Department of Health and Human Services (DHHS). National Strategy for Quality Improvement in Healthcare: Report to Congress. 2011. (accessed January 2012) Available at:
http://www.healthcare.gov/law/resources/reports/nationalqualitystrategy032011.pdf

National Priorities Partnership (NPP). Priorities for the National Quality Strategy: Input to the Secretary for the Department of Health and Human Services. 2011. (accessed January 2012) Available at: http://www.nationalprioritiespartnership.org/

Pham HH, Schrag D, O'Malley AS, Wu B, and Bach PB. Care Patterns in Medicare and Their Implications for Pay for Performance. NEJM 2007;356:1130-1139.

Bodenheimer T. Coordination Care – A Perilous Journey through the Health Care System. NEJM 2008;358:1064-1071.

Smith PC, Araya-Guerra R, Bublitz C, Parnes B, Dickinson LM, Van Vorst R, et al. Missing clinical information during primary care visits. JAMA 2005;293:565-571.

Moore C, Wisnivesky J, Williams S, McGinn T. Medical errors related to discontinuity of care from an inpatient to an outpatient setting. J Gen Intern Med 2003;18:646-651.

Gandhi TK. Fumbled handoffs: one dropped ball after another. Ann Intern Med 2005;142:352-358.

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

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:
The MHSS assess the degree to which a practice has successfully implemented factors associated with the patient centered medical home. Evidence suggests the PCMH model reduces costs and improves the quality of care. Additional early evidence suggests implementing the MHSS factors specifically reduces costs of care and improves clinical outcomes for patients.

1b.2 Summary of Data Demonstrating Performance Gap *(Variation or overall less than optimal performance across providers)*:
[*For Maintenance* – *Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]
Care Transitions:
Individuals are particularly susceptible to negative outcomes and wastefully care when transitioning from hospital-based care to a primary care physician (Kripalani 2007). One in five patients discharged from the hospital to home experience an adverse event; an estimated 66% of these events were drug-related and could have been avoided or mitigated by improved transitional care (Forster 2003). Additionally, patients frequently leave the hospital with pending results of medical tests (40% of discharged patients), yet outpatient physicians infrequently receive medical records from a hospital stay within a timely manner (Roy 2005). Direct communication between the inpatient and outpatient provider occurs in only 3-20% of cases (Coleman 2005).

Health Information Technology (HIT):
The IOM report, Building a Better Delivery System: A New Engineering/ Health Care Partnership (IOM, 2005) highlighted role of health information technology (HIT) in improving in making health care more safe, efficient and effective. The report calls for greater collaboration between health care and engineering to solve these problems, and for public and private entities to accelerate the development of the National Health Information Infrastructure. Since this report, the Health Information Technology for Economic and Clinical Health (HITECH) act has dramatically advanced the adoption of HIT in health care practices (Vest 2010). However, in many cases the expected benefits of the HIT have not materialized owing to technical and organizational barriers to improvement (Adler-Milstein 2009, Overhage 2002).

Specifically, systems are designed to collect encounter-based documentation instead of longitudinal and collaborative (e.g. across practice and provider) documentation. Documentation is often optimized for billing and does not support co-management across providers (O'Malley 2009). To address several of these challenges, the HITECH act provides incentives for "meaningful use" of electronic health records with a focus on three core criteria: electronic prescribing, ability to exchange key clinical information among providers, and reporting quality measures. A recent survey has suggested only 3% of hospitals and 0.9% of ambulatory practices meet these criteria (Adler-Milstein 2010). However, implementation of the "meaningful use" criteria, even at the lowest level, is predicted to reduce hospital mortality (Jones 2012).

Chronic Care Delivery:
A substantial body of literature shows that that components of the patient centered medical home (PCMH), particularly the Chronic Care Model, are associated with improved clinical outcomes and patient experience of care (Grumbach 2010). However, evidence suggests, practices are still slow to adopt particular elements of the chronic care model. The American Academy of Family

Physicians' national survey of family physicians suggests that nearly half of all family physicians report using chronic disease management approaches, but only 20% report using registries or patient tracking and 13% report offering support for patient self-management (Backer 2010).

PCMH Recognition Performance over Time:
NCQA has been using the MHSS to determine eligibility for the NCQA Recognized PCMH program since 2008. In that time, 4779 surveys have been submitted, and 3302 practices/physicians have been recognized (numbers do not reflect success rate; many submissions are still under review). Practices must renew their application every 3 years to maintain NCQA recognition. In 2011, our renewal rate was 139%. Over the past 4 years of the program, 422 practices/physicians have applied for a higher level of recognition using the NCQA add-on survey process. In 2012, NCQA projects 3600 practices/providers will apply for recognition.

MHSS Survey Performance over Time:
In late 2011, NCQA released the most recent version of the MHSS survey (seen above) which added some new elements, strengthened existing elements and reorganized elements. Given the newness of this survey version, we do not yet have available data to show how practices perform on these exact elements. Therefore, we plan to provide to NQF practice performance data using the previously NQF-endorsed version of the survey (2008 MHSS). The performance data for 2011 shown below are the practices which submitted surveys in 2011 during the last opportunity to use the 2008 MHSS survey (January-October 2011). See section 1b.1 for a crosswalk between the 2011 version and the 2008 version (see also attachment 2008 MHSS 2011 Crosswalk).

Composite 1 Enhance access and continuity (Possible Points: 17)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 10.42; 11.62; 11.02; 12.75
Stdev: 3.15; 3.50; 3.99; 2.03
Min: 0; 1; 0; 9
Max: 16.5; 17; 17; 16.75
P10: 7; 6.5; 4; 10
P25: 8; 9.75; 9; 11.25
P50: 10.5; 12.25; 12; 12
P75: 12.75; 13.75; 14; 14
P90: 14.75; 16; 15; 15.75

Composite 2 Identify and manage patient populations (Possible Points: 19)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 11.43; 14.29; 14.04; 15.44
Stdev: 5.62; 3.57; 4.44; 2.08
Min: 0; 1.5; 0; 7.5
Max: 19; 19; 19; 19
P10: 1.5; 8.25; 6; 13.5
P25: 8.88; 12.75; 13.25; 15.5
P50: 13.5; 15.5; 15.5; 16.25
P75: 15.5; 16.75; 17; 16.25
P90: 17; 17; 17.75; 17

Composite 3 Plan and manage care (Possible Points 16)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 9.07; 11.82; 11.37; 13.75
Stdev: 4.86; 3.71; 3.92; 2.33
Min: 0; 0; 0; 3
Max: 16; 16; 16; 16
P10: 1.5; 5.75; 5; 11
P25: 6.13; 9.25; 8.25; 13.25

P50: 8.75; 13; 12.5; 14.75
P75: 13.25; 15.25; 14.75; 15.5
P90: 15.38; 15.5; 15.5; 15.5

Composite 4 Provide self-care support and community resources (Possible Points 4)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 2.33; 2.90; 2.57; 3.48
Stdev: 1.67; 1.32; 1.54; 0.75
Min: 0; 0; 0; 2
Max: 4; 4; 4; 4
P10: 0; 0; 0; 2
P25: 0; 2; 2; 3
P50: 3; 3; 3; 4
P75: 4; 4; 4; 4
P90: 4; 4; 4; 4

Composite 5 Track and coordinate care (Possible Points 22)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 12.68; 16.18; 16.81; 18.51
Stdev: 7.33; 5.77; 5.04; 2.92
Min: 0; 0; 0; 7.5
Max: 22; 22; 22; 22
P10: 3.75; 7; 7.75; 15.5
P25: 7; 13.25; 14.75; 16.25
P50: 14.38; 17.5; 18.25; 19.25
P75: 19.63; 21; 21; 21
P90: 21; 22; 22; 22

Composite 6 Measure and improve performance (Possible Points 15)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 10.74; 11.68; 11.91; 12.90
Stdev: 3.44; 3.28; 3.32; 1.56
Min: 0; 0; 0; 7.5
Max: 15; 15; 15; 15
P10: 7.5; 6; 7.75; 11
P25: 9; 10.5; 10.5; 12
P50: 11.13; 12.5; 12.75; 13.5
P75: 13.5; 14.75; 15; 14
P90: 14.88; 15; 15; 15

1b.3 Citations for Data on Performance Gap: [*For **Maintenance*** – *Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Section 1b.2 references a random sample of data from the most recent four years of measurement for this measure. The data in section 1b.2 includes percentiles, mean, min, max, standard deviations.

Adler-Milstein J, Bates DW, and Jha AK. U.S. Regional Health Information Organizations: Progress and Challenges. Health Affairs 2009;28:483-492.

Adler-Milstein J, Bates DW, and Jha AK. A Survey of Health Information Exchange Organizations in the United States: Implications for Meaningful Use. Ann Intern Med 2011;154:666-671.

Backer LA. Building the case for the patient-centered medical home. Family Practice Management. 2009. (accessed January 2012) Available at http://www.aafp.org/fpm/2009/0100/
Coleman EA, Smith JD, Raha D, Min SJ. Posthospital medication discrepancies: Prevalence and contributing factors. Arch Intern Med. 2005;165:1842-7.

Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The Incidence and Severity of Adverse Events Affecting Patients after Discharge from the Hospital. Ann Intern Med. 2003;138:161-7.

Grumbach K, Grundy P. Outcomes of Implementing Patient Centered Medical Home Interventions: A review of the evidence from prospective evaluation studies in the United States. Patient-Centered Primary Care Collaborative. 2010. Washington D.C.

Institute of Medicine-Committee on Engineering and Healthcare System. Building a Better Delivery System: A New Engineering/Health Care Partnership. Washington DC: The National Academies Press, 2005.

Jones SS, Heaton P, Friedberg MW, and Schneider EC. Today's 'Meaningful Use' Standard for Medication Orders by Hospitals May Save Few Lives; Later Stages May Do More. Health Affairs 2012;10:2005-2012.
Kripalani S, LeFevre F, Phillips CO, Williams MV, Basaviah P, and Baker D. Deficits in Communication and Information Transfer Between Hospital-Based and Primary Care Physicians. JAMA 2007;297:831-841.

O'Malley AS, Grossman JM, Cohen GR, Kemper NM, and Pham HH. Are Electronic Medical Records Helpful for Care Coordination* Experiences of Physician Practices. JGIM 2009;25:177-85.

Overhang J, Deter P, Perkins S, et al. A randomized, controlled trial of clinical information shared from another institution. Ann Emerg Med 2002; 39: 14-23.

Roy CL, Poon EG, Karson AS, Ladak-Merchant Z, Johnson RE, Maviglia SM, et al. Patient safety concerns arising from test results that return after hospital discharge. Ann Intern Med. 2005;143:121-8.

Vest JR, and Jasperson J. What should we measure* Conceptualizing usage in health information exchange. J Am Med Inform Assoc 2010;17:302-307.

1b.4 Summary of Data on Disparities by Population Group: [*For <u>Maintenance</u> –Descriptive statistics for performance results <u>for this measure</u> by population group*]
There have been a number of concerns about the ability of small practices to implement the medical home. Small, independently owned practices with 5 physicians or fewer provide nearly three-quarters of all ambulatory care visits (Hsiao 2008). These practices may face challenges bearing the cost of investing in HIT or specialized staff such as diabetes educators (Bernenson 2008). This raises the concerns that individuals in rural areas, with limited access to a larger health system, may be less likely to receive the benefits of the PCMH.

In light of these concerns, NCQA conducted an analysis of its database of PCMH recognized practices to determine if there were differences in the capabilities and level of recognition by practice size. Both large and small practices demonstrated capabilities related the PCMH's goals of accessible, coordinated, and patient-centered care (57% of recognized NCQA recognized PCMH practices in 2008 had fewer than 5 physicians). However, practices affiliated with larger organizations achieve higher levels of PCMH recognition compared to unaffiliated small practices, particularly in the use of data for population management and patient self-management. To continue our analysis of disparities between PCMH recognition, NCQA are currently conducting a qualitative study with practices with 5 or fewer physicians to gain a better understanding of the barriers to becoming a NCQA recognized PCMH (Scholle 2011).

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For <u>Maintenance</u> – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Hsiao J, Cherry DK, Beatty PC, and Rechtsteiner EA. National Ambulatory Medical Care Survey: 2007 Summary. National Health Statistics Report. 2010: Number 27.

Berenson RA, Hammons T, Gans DN, Zuckerman S, Merrel K, Underwood WS, and Williams AF. A house is not a home: keeping patients at the center of practice redesign. Health Affairs 2008; 27(5):1218-30.

Scholle SH, Saunders RC, Tirodkar MA, Torda P, and Pawlson GL. Patient-Centered Medical Homes in the United States. J Ambulatory Care Manage 2011;34:1-14.

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

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

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes☐
L	M-H	M	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms
M-H	L	M-H	Yes☐ IF potential benefits to patients clearly outweigh potential harms
L-M-H	L-M-H	L	No ☐

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service	Does the measure pass subcriterion1c? Yes☐ IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)*:
Summary:
MHSS factors assess the presences of structural elements and processes congruent with the PCMH model of care. Evaluations of PCMH interventions across the country have shown improved patient experience, improved quality of care, reductions in hospital and emergency department utilization, and reduced total health care expenditures (Grumbach 2010; Takach 2011; Jaen 2010; Gabbay 2011; Vestal 2011; Fontaine 2011; Thygeson 2011; Toomey 2011; Maeng 2011; Fields 2010; Reid 2009). The evidence for the structure-process-outcome relationship for the MHSS is discussed below on three levels. First, we will present the general evidence for the PCMH model. Second, we will present the evidence for the NCQA recognized PCMH model. Finally, we will present specific evidence for each composite within the MHSS.

PCMH Model Evaluation:
The Patient-Centered Primary Care Collaborative (PCPCC) recently released a report that summarized findings from PCMH demonstrations (Grumbach 2010, http://www.pcpcc.net/content/pcmh-outcome-evidence-quality) and concluded that this body of work shows success in increasing the quality of care and in reducing cost of care on some measures. In the academic literature, a review of PCMH initiatives in 17 states, showed improved outcomes for Medicaid beneficiaries (improved patient and provider satisfaction and decreased per capita costs; Takach 2011). Individual studies have shown reduced use of hospitalization and emergency room visits and overall savings (Fields 2010; Fontaine 2011), improvement in patient and provider experiences (Reid, 2009), improvement in quality of evidenced-based clinical care (Reid, 2009; Gabbay 2011; Thygeson 2011), increased use of preventive services (Pandhi 2011), and improved patient outcomes (Toomey 2011; Maeng 2011; Gabbay 2011)

PCMH Structure > PCMH Processes >Accessible, continuous, team-based care that focuses on the whole person, with the PCMH taking responsibility for care coordination > Improved patient outcomes > Reduced health care expenditure (Joint Principles 2007).

NCQA recognized PCMH Model Evaluation:
Two recently conducted studies have shown a direct relationship between NCQA recognized PCMHs (using the MHSS) and reduced costs. North Carolina placed 1.1 million Medicaid enrollees in NCQA recognized PCMH. A recent study by the actuarial firm, Milliman Inc., showed a $984 million savings for these enrollees between 2007-2010 (Vestal 2011). A second study still being conducted showed beneficiaries enrolled in an NCQA recognized PCMH showed lower rates of utilization and Medicare payments across many types of services than comparison practices, particularly with regard to ambulatory care sensitive condition ER visits (McCall 2011). Two additional peer-reviewed study of NCQA recognized PCMH practices showed improved outcomes for patients. An evaluation of Pennsylvania's statewide implementation of the PCMH program recognized by NCQA demonstrated significant

improvements in receiving evidenced-based screenings and treatment for diabetes and modest significant improvements in clinical outcomes (blood pressure and cholesterol levels; Gabbay 2011). Similarly, Geisinger Health Systems, using the NCQA endorsed PCMH model showed reduced amputation rates among patients with diabetes, end-stage renal disease, myocardial infarction and stroke (Maeng 2011).

Evidence for MHSS Composites:
Much of the evidence for the effectiveness and importance of many of the MHSS key composites is aligned with the empirically derived framework of the Wagner Chronic Care Model (CCM) (Wagner 2001). This model is based on a substantial and growing body of literature that has linked use of clinical information systems and registries, decision support, performance measurement and feedback, delivery system interventions, and patient self-management support to improved clinical outcomes and patient experience of care. A large set of references related to research on the CCM including assessment of the impact of implementation on quality of care for diabetes, asthma, depression and other chronic illnesses can be found at:
http://www.improvingchroniccare.org/index.php*p=Evidence_for_Better_Careands=5

Selected Evidence for Composite 1: Enhance Access and Continuity:
*The rapid growth in telephone triage and advice services appears to have the advantage of reducing immediate medical workload through the substitution of telephone consultations for in-person consultations, and this has the potential to reduce costs (Leibowitz 2003).
* At a Group Health Cooperative pilot clinic, the addition of phone and e-mail encounters was accompanied by fewer office visits and increased patient/physician satisfaction (Margolius, Bodenheimer 2010).
* Continuity of care with primary care practitioners is associated with better preventive and chronic care, improved experiences for both patient and practitioner, and lower costs (Nutting 2003; Saultz 2005). For people with multiple chronic conditions and multiple providers, continuity of care with a usual care source is also associated with decreased hospitalization and emergency room visits (Cabana 2004). While continuity of care can be difficult to achieve in the primary care clinic setting due the tight scheduling constraints and lack of primary care physicians, there is some evidence that continuity of care will reduce demand for primary care resources. Bodenheimer (2011) provides the example of a safety network clinic where a focus on continuity of care reduced demand by reducing the number of duplicated appointments Murray 2000), and increasing the interval between visits without causing harm to the quality of care (Schectman 2005).
*Patients participating in our focus groups felt that providing printed summary information to patients at the end of a clinic visit improves their understanding of their care, enhances their relationships with providers, improves their satisfaction with care, and motivates them to adhere to treatment plans (Tang 1998).
*Patients report having few fears, improved understanding of care and greater involvement in shared decision making when access to medical records is shared between patients and providers (Walker 2011).
*Team work was an essential component of high-performing office practices. Training capabilities should be applicable to large practices that can create more specialized roles for staff and small practices where an individual may need to perform multiple roles (Grumbach, and Bodenheimer 2004).

Selected Evidence for Composite 2: Identify and Manage Patient Population
*Delivery of excellent primary care—central to overall medical care—demands that providers have the necessary information when they give care. The National Alliance for Primary Care Informatics, a collaborative group sponsored by a number of primary care societies, argues that providers' and patients' information and decision support needs can be satisfied only if primary care providers use electronic medical records (EMRs). Substantial benefits realizable through routine use of electronic medical records include improved quality, safety, and efficiency, along with increased ability to conduct education and research (Bates 2003).
* The imperative to prevent the first episode of coronary disease or stroke or the development of aortic aneurysm and peripheral arterial disease remains as strong as ever because of the still-high rate of first events that are fatal, disabling, or require expensive intensive medical care. The evidence that most cardiovascular disease is preventable continues to grow (Pearson 2002).
*Studies from four benchmark leaders demonstrate that implementing a multifunctional system can yield real benefits in terms of increased delivery of care based on guidelines (particularly in the domain of preventive health), enhanced monitoring and surveillance activities, reduction of medication errors, and decreased rates of utilization for potentially redundant or inappropriate care (Chaudry 2006).
*Health needs assessment is a systematic approach to ensuring that a health service uses its resources to improve the health of the population in the most efficient way; it provides a method of monitoring and promoting equity in the provision and use of health services and addressing inequalities in health (Wright 1998).

Selected Evidence for Composite 3: Plan and Manage Care
*At Community Care of North Carolina (CCNC), practitioners use a Care Management Information System that contains claims information used to examine utilization patterns, implementation of best practice guidelines, and achievement of clinical outcomes. CCNC estimated savings for FY2006 were $150-$170 million when compared to the previous primary care case management program. CCNC also achieved $3.3 million in savings for people with asthma and $2.1 million in savings for people with diabetes between 2000 and 2002. Further, asthma patients experienced improved care as evidenced by greater reductions in inpatient hospital admissions and emergency room visits. Diabetes patients had fewer hospitalizations and achieved high rates of performance measures, such as primary care visits, blood pressure readings, foot exams, and lipid and A1C tests (Kaiser 2009).
*The Geisinger EHR has a self-scheduling option available for more than 100,000 consumers. It also provides automated reminders for both the clinical team and the patient. An after-visit summary is provided to each patient showing how he or she is doing compared to the goal, along with an explanation of the risks associated with failing to achieve the goal. Initial results from more than 20,000 diabetic patients have been promising, including statistically significant increases in overall diabetic bundle performance, glucose control, blood pressure control, and vaccination rates (Paulus et al 2008).
*Deloitte's Center for Health Solutions' model predicts that care coordination from disease management results in ~ 30 percent savings to inpatient and physician reimbursement, 10 percent fewer hospital admissions, 20 percent fewer emergency room visits and 10 percent less absenteeism (Deloitte 2010).
*A process to ensure accuracy with medications reduces medical errors related to medication prescriptions (Gurwitz 2003).
*A multifaceted intervention including various members of the outpatient health care provider team (and the patient) is crucial to enhancing medication reconciliation and results in a significant decrease in prescription medication errors (Varkey 2007).
*Primary care physicians believe an integrated electronic prescribing and drug management system will improve continuity of care, and are more likely to use the system for patients with more complex, fragmented care (Tamblyn 2006).
*Use of e-prescribing has many benefits, including avoiding errors due to misinterpretation of handwritten prescriptions, more timely communication of prescriptions (so that the medicine can be waiting for the patient at the pharmacy), and easier compliance with formulary — saving money for both patients and payers. E-prescribing also provides time savings within the practice. At one large primary care facility, use of the Rx Gateway reduced the number of "call-in prescriptions" from 350 per day to 80. They found that the prescriptions were delivered rapidly, and they could easily track the status of a prescription. They estimate that because of the increased efficiency they save the equivalent of three full-time employees (Drazen 2008).

Selected Evidence for Composite 4: Provide Self-Care Support and Community Resources
*In 34 trials of over 200 patient decision aids, use of aids led to greater knowledge, more realistic expectations, lower decisional conflict, greater participation in shared decision-making, and fewer patients remaining undecided about options (Stacey 2011).
*In a Commonwealth study on medical homes, researchers found that after adjusting for age, gender, co-morbidities, and pharmaceutical use, only clinical reminders for counseling had a significant cost association (p=.01) with the 18 medical groups (1,429 patients) with counseling reminders averaging $337.93 per patient less than the 9 medical groups (579 patients) without this decision support system (Flottemesch, et al 2010).
*Patients who report being treated with dignity and were involved in decisions were likelier to adhere to doctor recommendations (Beach 2005).
*Substantial research supports the importance of engaging patients and families in their care, especially with chronic illness (Homer, Baron 2010).

Selected Evidence for Composite 5: Track and Coordinate Care
*Errors occur frequently in management of the testing process in primary care physicians´ offices. Standardization of processes, computerized test tracking systems (especially those embedded in electronic medical records), and attention to human factors issues are likely to reduce errors and harm (Hickner 2005; Murff 2003).
*Deficits in communication and information transfer at hospital discharge are common and may adversely affect patient care. Interventions such as computer-generated summaries and standardized formats may facilitate more timely transfer of pertinent patient information to primary care physicians and make discharge summaries more consistently available during follow-up care. (Kripalini 2007)
*Effective care transitions, between primary care and specialist providers, between facilities, and between physicians and institutional settings, ensure that patient needs and preferences for health services and information-sharing across people, functions and sites are met over time. (Greiner/ABIM Fdn 2007).

Selected Evidence for Composite 6: Measure and Improve Performance

*Improving the work environment in primary care practices (including the relationship between physician and nonphysician professionals) can improve patient outcomes (Bodenheimer and Grumbach 2004).
*By systematically measuring patient satisfaction and perceptions of quality, medical practices can increase the effectiveness of primary care, improve patient outcomes, and control costs. (Drain 2001)
*Evaluation of a 12-month demonstration of a PCMH in an integrated group practice demonstrated significant improvements in patients' and providers' experiences and in the quality of clinical care. (Reid 2009)
*There are several potential gains from the public disclosure of performance data, but use of the information by provider organizations for quality improvement may be the most productive area for further research. (Marshall 2000)
*Improvements in the quality of chronic illness care require more than evidence about efficacious tests and treatments. They also require evidence about the system changes that produce better care and quality improvement methods to implement such changes. (Wagner 2001)
*Thirty-two of 39 studies found that interventions based on chronic care model components improved at least 1 process or outcome measure for diabetic patients. Regarding whether chronic care model interventions can reduce costs, 18 of 27 studies concerned with 3 examples of chronic conditions (congestive heart failure, asthma, and diabetes) demonstrated reduced health care costs or lower use of health care services (Bodenheimer 2002).
*In an analysis of PCMH Practices, after adjusting for patient age, gender, co-morbidities, self-reported smoking status, A1c level, LDL level, and prescription drug use, patients at the medical group with no Quality Improvement (QI) activities averaged $125 more per patient than those at the three medical groups with only formal QI activities. Patients at medical groups with both QI and PM averaged $126 less than those at the three medical groups with only formal QI activities, and patients at the medical groups with all three HCO activities (QI, PM, and IF) averaged $245 less than patients at the three medical groups with only QI (Flottemesch et al 2010).

1c.2-3 Type of Evidence *(Check all that apply)*:
Selected individual studies (rather than entire body of evidence), Systematic review of body of evidence (other than within guideline development)

1c.4 Exclusions Justified No exclusions

1c.5 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)*:
The evidence directly relates to medical home model, the chronic care model, use of health information technology and the MHSS.

1c.6 Quantity of Studies in the Body of Evidence (*Total number of studies, not articles*): Studies directly related to NCQA MHSS measures: 4
Studies related to PCMH model of care: 16

1c.7 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): PCMH is a relatively new model of care and evaluation of the PCMH model on outcomes and cost has only just begun. Despite these limitations, the strength of the evidence for PCMH reducing costs and improving quality of care (both process and outcomes) is strong and consistent. In addition there is a significant body of evidence for the models on which the MHSS is built—the medical home and chronic care models and use of health information technology.

1c.8 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* The PCMH model is set of standards practices should implement to improve quality and value of care. The implementation of this model varies across the country. Therefore results from evaluation studies have shown variation in the magnitude of the benefit from the PCMH model. However, all evaluations have shown some statistically significant benefit and no harms from the implementation of the PCMH model.

1c.9 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:

Benefit is high; Harms to patients are not apparent.

1c.10 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? No

1c.11 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: N/A

1c.12 System Used for Grading the Body of Evidence: Other

1c.13 If other, identify and describe the grading scale with definitions: This refers to clinical guidelines and does not apply to the MHSS. The evidence for PCMH is new and has not yet been graded.

1c.14 Grade Assigned to the Body of Evidence: N/A

1c.15 Summary of Controversy/Contradictory Evidence: N/A

1c.16 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:

AAFP, AAP, ACP, AOA. Joint Principles of the Patient-Centered Medical Home. 2007 (Accessed January 2012) Available at: http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home

Bates DW, Ebell, M., Gotlieb, E., Zapp, J., and Mullins, HC. A Proposal for electronic medical records in U.S. primary care. Journal of the American Medical Informatics Association 2003;10:1-10.
Beach MC, Sugarman J, Johnson RL, Arbelaez JJ, Duggan PS, Cooper LA. Do patients treated with dignity report higher satisfaction, adherence and receipt of preventive care? Ann Fam Med. 2005;3:331-338.
Bodenheimer T. Lessons from the trenches--a high-functioning primary care clinic. N Engl J Med. 2011;365(1):5-8.
Bodenheimer, T., E.H. Wagner, and K. Grumbach. Improving Primary Care for Patients with Chronic Illness: The Chronic Care Model, Part 2 JAMA 2002;288(15):1909–1914.
Cabana MD, Jee SH. Does continuity of care improve patient outcomes?J Fam Pract. 2004;53:974-80.
Chaudry, B., Wang, J., Wu, S., Maglione, M., and Mojica, W. Systematic review: impact of health information technology on. Ann of Int Medicine, 2006;144:E12-22.
Deloitte Center for Health Solutions. Coordinating Chronic Care Management through Health Information Exchanges. 2010. (accessed January 2012) Available at: http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/us_chs_ChronicCareManagementHIEs_w.pdf
Drain, M. Quality improvement in primary care and the importance of patient perceptions. Journal of Ambulatory Care Management 2001;24(2):30-46.
Drazen, E., Fortin and Stuntz, L. Health information exchanges: future prospects, current realities . 2008 (accessed January 2012) Available at: http://assets1.csc.com/health_services/downloads/10146_1.pdf
Fields, D., E. Leshen, K. Patel. Driving Quality Gains and Cost Savings Through Adoption of Medical Homes. Health Affairs. 2010;29(5):819–26
Flottemesch, T.J., Scholle, S.H., O'Connor, P.J., Solberg, L.I., Asche, S, Pawlson, L.G. 2010. Are Characteristics of the Medical Home Associated with Diabetes Care Costs?
Fontain P, Flottemesch TJ, Solber LI, Asche SE. Is consistent primary care within a patient-centered medical home related to utilization patterns and costs* J Ambul Care Manage 2011;34(1):10-19.
Gabbay RA, Bailit MH, Mauger DT, Wagner EH and Siminerio L. Multipayer patient-centered medical home implementation guided by the chronic care model. Jt Comm J Qual Patient Saf 2011;37(6):265-73
Greiner, A.. White Space or Black Hole: What Can We Do to Improve Care Transitions* ABIM Foundation Issue Brief #6.2007 (accessed January 2012) Available at: http://www.abimfoundation.org/publications/pdf_issue_brief/F06-05-2007_6.pdf.
Grumbach K, Grundy P. Outcomes of Implementing Patient Centered Medical Home Interventions: A review of the evidence from prospective evaluation studies in the United States. Patient-Centered Primary Care Collaborative. 2010 (accessed January 2012). Available at http://www.pcpcc.net/files/evidence_outcomes_in_pcmh.pdf
Grumbach, K., andBodenheimer, T. Can health care teams improve primary care practice*" JAMA 2004;291:1246–1251.
Gurwitz, JH., Field, TS., Harrold, LR., Rothschild, J., and Debellius K. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. JAMA 2003;289:1107-1116.
Hickner, JM., Fernald, DH., Harris, DM., Poon, E., and Elder, NM. Issues and initiatives in the testing process in primary care

physician offices . Joint Commission Journal on Quality and Patient Safety 2005;31(2):81-89.
Homer CJ, Baron RJ. How to Scale Up Primary Care Transformation: What We Know and What We Need to Know? J Gen Int Med 2010;25(6):625-629.
Jaen CR, Reffer RL, Miller WL, Palmer RF, Wood R, Davila M, Steward EE, Crabtree BF, Nutting PA, and Stange KC. Patient outcomes at 26 months in the patient-centered medical home National Demonstration Project. Ann Fam Med 2010:8 Supp 1: S57-S67.
Kaiser Commission on Medicaid and the Uninsured. Community Care of North Carolina: Putting Health Reform Ideas into Practice in Medicaid. 2009. (accessed January 2012). Available from: http://www.kff.org/medicaid/upload/7899.pdf
Kripalini, S., LeFevre, F., Phillips, CO., Williams, MF., and Basaviah,P (2007) Deficits in communication and Information transfer between hospital-based and primary care physicians. JAMA 2007;297, 831-841.
Leibowitz, R., Day, S., and Dunt, D. A systematic review of the effect of different models of after-hours primary medical care services on clinical outcome, medical workload, and patient and GP satisfaction. Family Practice, 2003;20(3):311-317.
McCall NT. RTI International. Personal correspondence September 15, 2011.
Maeng DD, Graf TR, Davis DE, Tomcavage J, Bloom FJ. Can a Patient-Centered Medical Home Lead to Better Patient Outcomes* The Quality Implications of Gesisinger's ProvenHealth Navigator. Am J Med Qual 2011; epub ahead of print Aug 18.
Margolius, D., T. Bodenheimer. Transforming Primary Care: From Past Practice to The Practice of The Future. Health Aff. 2010;29(5):779–84.
Marshall, M., Shekelle, PG., Leatherman, S., and Brook, RH. The public release of performance data: What do we expect to gain* A review of the evidence. JAMA, 2000;283:1866-1874.
Murff, HJ., Ghandi, TK., Karson, AK., and Mort, EA.. Primary care physician attitudes concerning follow-up of abnormal test results and ambulatory decision support systems. International Journal of Medical Informatics, 2003:71(3);137-149.
Murray M, Tantau C. Same-day appointments: Exploding the access paradigm. Fam Pract Manag. 2000;7:45-50.
Nutting PA, Goodwin MA, Flocke SA, Zyzanski SJ, Stange KC. Continuity of primary care: To whom does it matter and when* Ann Fam Med. 2003 Sep-Oct;1:149-55.
Paulus, R.A., Davis, K. and Steele, G.D. Continuous Innovation in Health Care: Implications of the Geisinger Experience. Health Affairs 2008;27(5):1235-45
Pearson, TA., Blair, SN., Eckel, RH., and Fair, JM. AHA guidelines for primary prevention of cardiovascular disease and stroke: 2002 Update. Circulation. 2002;106:388-391.
Reid, R., Fishman, P., Yu, O., Ross, T., and Tufano, JT. (2009). Patient-Centered Medical Home Demonstration: A prospective, quasi-experimental, before and after evaluation. American Journal of Managed Care. 2009;15(9):e71-e87
Saultz JW, Lochner J. Interpersonal continuity of care and care outcomes: A critical review. Ann Fam Med. 2005 Mar-Apr;3:159-66.
Schectman G, Barnas G, Laud P, Cantwell L, Horton M, Zarling EJ. Prolonging the return visit interval in primary care. Am J Med. 2005 Apr;118:393-9.
Stacey D, Bennett CL, Barry MJ, Col NF, Eden KB, Holmes-Rovner M, Liewellyn-Thomas H, Lyddatt A, Legare F, and Thomson R. Decision aids for people facitn health treatment or screening decisions. Cochrane Database Syst Rev 2011; 10:CD001431.
Takach M. Reinventing Medicaid: State Innovations to Quality and Pay for Patient-Centered Medical Homes Show Promising Results. Health Affairs 2011; 30:1325-1334.
Tamblyn, R. The development and evaluation of an integrated electronic prescribing and drug management system for primary care. Journal of the American Medical Informatics Association, 2006;13(2):148-159
Tang, P. and C. Newcomb. Informing Patients: A Guide for Providing Patient Health Information. JAMIA, 1999;5:563-570
Thygeson MN, Solberg LI, Asche SE, Fontaine P, Pawlson GL, Scholle SH. Using Fuzzy Set Qualitative Comparative Analysis (fs/QCA) to Explore the Relationship between Medical "Homeness" and Quality. Health Serv Res 2011; epub ahead of print: Aug 22.
Toomey SL, Chan E, Ratner JA, Schuster MA. The patient-centered medical home, practice patterns, and functional outcomes for children with attention deficit/hyperactivity disorder. Acad Pediatr 2011; Epub ahead of print Oct 2.
Varkey P, Cunningham J, and Bisping DS. Improving medication reconciliation in the outpatient setting. Jt Comm J Qual Patient Saf. 2007;33(5):286-92.
Vestal C. "Study: Medical homes saved North Carolina nearly $1 billion." Health Beat. December 30, 2011.
Wagner EH, Austin BT, David C, Hindmarsh M, Schaefer J, and Bonomi A. Improving Chronic Illness Care: Translating Evident into Action. Health Affairs. 2007;20: 64-78.
Walker J, Leveille SG, Ngo L, Vodicka E, Darer JD, Dhanireddy S, Elmore JG, Feldman HJ, Lichtenfeld MJ, Oster N, Ralston JD, Ross SE, Delbanco T. Inviting patients to read their doctors' notes: patients and doctors look ahead. Ann Intern Med 2011;155:811-9.
Wright, J., Williams, R., and Wilkinson, JR. Health needs assessment: Development and importance of health needs assessment.

BMJ 1998.316:1310-1313.

1c.17 Quote verbatim, the specific guideline recommendation *(Including guideline # and/or page #)*:
N/A

1c.18 Clinical Practice Guideline Citation: N/A

1c.19 National Guideline Clearinghouse or other URL: N/A

1c.20 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? No

1c.21 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: N/A

1c.22 System Used for Grading the Strength of Guideline Recommendation: Other

1c.23 If other, identify and describe the grading scale with definitions: This refers to clinical guidelines and does not apply for this measure.

1c.24 Grade Assigned to the Recommendation: N/A

1c.25 Rationale for Using this Guideline Over Others: N/A

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?
1c.26 Quantity: High 1c.27 Quality: High 1c.28 Consistency: High

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

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

2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained?
S.1 Do you have a web page where current detailed specifications for this measure can be obtained? Yes
S.2 If yes, provide web page URL: http://www.ncqa.org/tabid/631/Default.aspx

2a. Precisely Specified

2a.0.1 Components of the Composite. (List the components, i.e., domains/sub-composites, individual measures. If component measures are NQF-endorsed, include NQF measure number; if not NQF-endorsed, provide date of submission to NQF)

If the composite measure cannot be specified with a numerator and denominator, please consult with NQF staff.
If the component measures are combined at the aggregate level, do not include the individual measure specifications below.

2a1.1 Composite Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
The composite measures do not have a typical numerator. Each composite is composed of elements; each element is made up of individual factors. The composite score is calculated by adding the element scores. The element scores are based on the proportion of individual factors with a satisfactory "yes" response (see Specifications for details).

Note: In the calculation algorithm, the measurement domains are termed "composites," the measures within each domain are referred to as “elements,” and the items within a measure, or measure subcomponents, are referred to as “factors.”

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
The numerator time window is 3 months. Practices must show that measured factors have been in place for at least 3 months. Data should be no more than 12 months old.

2a1.3 Numerator Details *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses*:
The MHSS is comprised of 6 composites which contain 27 elements. Each element is made up of individual factors (or measurement items) which can be answered yes/no. The number of factors in an element varies.

To calculate the composite score, determine the proportion of factors met in each element (0%, 25%, 50%, 75%, 100%). The proportion of factors met is multiplied by the points allotted for each element. The composite score is the sum of points for all the elements in the composite

(See Specifications for further detail.)

Composite 1) Enhance access and continuity – Total Possible Points 20
Element 1A) Access during office hours (4 factors – 4 points)
Element 1B) After-hours access (5 factors – 4 points)
Element 1C) Electronic access (6 factors – 2 points)
Element 1D) Continuity (3 factors – 2 points)
Element 1E) Medical home responsibilities (4 factors – 2 points)
Element 1F) Culturally and linguistically appropriate services (4 factors – 2 points)
Element 1G) The practice team (8 factors – 4 points)

Composite 2) Identify and manage patient populations – Total Possible Points 16
Element 2A) Patient information (12 factors – 3 points)
Element 2B) Clinical data (9 factors – 4 points)
Element 2C) Comprehensive health assessment (9 factors – 4 points)
Element 2D) Use data for population management (4 factors – 5 points)

Composite 3) Plan and manage care – Total Possible Points 17
Element 3A) Implement evidence-based guidelines (3 factors – 4 points)
Element 3B) Identify high-risk patients (2 factors – 3 points)
Element 3C) Care management (7 factors – 4 points)
Element 3D) Medication management (6 factors – 3 points)
Element 3E) Use of electronic prescribing (6 factors – 3 points)

Composite 4) Provide self-care support and community resources – Total Possible Points 9
Element 4A) Support self-care process (6 factors – 6 points)
Element 4B) Provide referrals to community resources (4 factors – 3 points)

Composite 5) Track and coordinate care – Total Possible Points 18
Element 5A) Test tracking and follow-up (10 factors – 6 points)
Element 5B) Referral tracking and follow-up (7 factors – 6 points)
Element 5C) Coordinate with facilities and manage care transitions (8 factors – 6 points)

Composite 6) Measure and improve performance – Total Possible Points 20
Element 6A) Measure performance (4 factors – 4 points)
Element 6B) Measure Patient/Family Experience (4 factors – 4 points)
Element 6C) Demonstrate continuous quality improvement (4 factors – 4 points)
Element 6D) Tracking results over time (3 factors – 3 points)
Element 6E) Report performance (3 factors – 3 points)

Element 6F) Report data externally (4 factors – 2 points)

2a1.4 **Composite Denominator Statement** *(Brief, narrative description of the target population being measured)*:
The target population is eligible outpatient primary care practices.

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

2a1.6 **Denominator Time Window** *(The time period in which cases are eligible for inclusion)*:
NCQA requires recognized practices to submit a renewal survey every three years.

2a1.7 **Denominator Details** (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
The practice must provide primary care for all of the patients in its practice, not just selected patients. A practice is one or more clinicians who practice together and provide patient care at a single geographic location. Practicing together means that, for all the clinicians in a practice:

- The practice care team follows the same procedures and protocols
- Medical records for all patients treated at the practice site, whether paper or electronic, are available to and shared by all clinicians, as appropriate
- The same systems—electronic and paper-based—and procedures support both clinical and administrative functions, for example: scheduling, treating patients, ordering services, prescribing, maintaining medical records and follow-up

2a1.8 **Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*:
None

2a1.9 **Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
N/A

2a1.10 **Stratification Details/Variables** *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)*:
N/A

If the component measures are combined at the patient level and include outcomes, complete the following

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

2a1.13 **Statistical Risk Model and Variables** *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)*:
None

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

2a1.17 **Type of Score:** Weighted score/composite/scale

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

2a1.20 **Method of Scoring** Sum of component scores

2a1.21 **If "other" scoring method, describe**

2a1.22 **Missing Component Score** *(Indicate how missing component scores are handled)*: If a practice does not respond to an item or element within a composite, the item or element is given a score of zero. It is assumed if the practice does not respond yes or provide an explanation for not-applicable, the practice does not have the structure or process.

2a1.23 **Weighting:** Differential

2a1.24 **If differential weighting, describe:** Weighting was decided by a panel of experts using a delphi process (see attachment MHSS Delphi Process Overview)

2a1.25 **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: The score for each element is calculated separately. The score for each element is based on the proportion of factors the practice meets; 0%,25%,50%,75%,100% multiplied by the points allotted to the element. Within each element the number of factors varies and the importance of individual factors varies. Some factors are considered "must-pass" in order to achieve a score of 50% or higher on a particular element.

For example:
Element D: Medication Management – 3 points
The practice manages medication in the following ways.
Factor 1: Review and reconciles medications with patients/families for more than 50 percent of care transitions. Yes/No
Factor 2: Reviews and reconciles medications with patients/families for more than 80 percent of care transitions. Yes/No
Factor 3: Provides information about new prescriptions to more than 80 percent of patients/families. Yes/No
Factor 4: Assesses patient/family understanding of medications for more than 50 percent of patients with date of assessment. Yes/No
Factor 5: Assesses patient response to medications and barriers to adherence for more than 50 percent of patients with date of assessment. Yes/No
Factor 6: Documents over-the-counter medications, herbal therapies and supplements for more than 50 percent of patients/families, with the date of updates. Yes/No

Element Scoring:
A practice meeting 5-6 of the factors, including factor 1, receives 100% of the points = 3
A practice meeting 3-4 of the factors, including factor 1, receives 75% of the points = 2.25
A practice meeting 2 factors, including factor 1, receives a score 50% of the points = 1.5
A practice meeting only factor 1 receives 25% of the points = 0.75
A practice meeting no factors or does not meet factor 1 receives 0% of the points = 0

Step 2: The composite score is calculated by summing the points award to each element.

For example:
Composite 3: Plan and Manage Care
Element 3A) Implement evidence-based guidelines – 4 points * proportion of factors met
Element 3B) Identify high-risk patients – 3 points * proportion of factors met
Element 3C) Care management – 4 points * proportion of factors met
Element 3D) Medication management – 3 points * proportion of factors met
Element 3E) Use of electronic prescribing - 3 points* proportion of factors met

A practice meeting 50% of 3A factors, 100% of 3B factors, 75% of 3C factors, 100% of 3D factors, and 25% of 3E factors would have the following composite score:

2 + 3 + 3 + 3 + 0.75 = 11.75 out of 17 possible points.

The detailed score for each element can be found in the attached Specification documentation.

2a1.26 **Calculation Algorithm/Measure Logic Diagram URL or attachment:**
Attachment
Attachment 1 MHSS Specification.docx

2a1.27 **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):
The sample for each MHSS composite includes all patients in a practice.

2a1.28 **Data Source** *(Check all the sources for which the measure is specified and tested*). If other, please describe:
Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry, Healthcare Provider Survey, Management Data, Other, Paper Records, Patient Reported Data/Survey

2a1.29 **Data Source/Data Collection Instrument** (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): The Medical Home System Survey asks for physician or practice self-report of processes and structures with accompanying documentation. The documentation required for each factor varies. Examples of documentation include: written evidence of documented process within a practice, record of response times for phone calls and electronic messages, defined sample of patient records, patient education materials, reports from electronic system for patient health information, and screen shots of electronic resources. A complete list of documentation can be found in the attached Specifications.

2a1.30-32 **Data Source/data Collection Instrument Reference Web Page URL or Attachment:**
Attachment
Attachment 1 MHSS Specification-634632770502377869.docx

2a1.33-35 **Data Dictionary/Code Table Web Page URL or Attachment:**

2a1.36 **Level of Analysis** (*Check the levels of analysis for which the measure is specified and tested*): Clinician : Group/Practice, Clinician : Individual, Clinician : Team

2a1.37 **Care Setting** *(Check all the settings for which the measure is specified and tested)*: Ambulatory Care : Clinician Office

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

2a2.1 **Data/Sample** *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
A random sample of 442 NCQA recognized PCMH practices.

2a2.2 **Analytic Method** *(Describe method of reliability testing & rationale)*:
All elements in the MHSS require the practice to attach documents to demonstrate how it meets the elements. Each element provides explanations and describes the documentation required. Three separate trained NCQA surveyors evaluate the responses and documentation against program standards and determine final scores for each relevant element and composite. The MHSS survey is not valid for self-report alone, documentation must be provided.

To determine data element validity, NCQA analyzed the percent agreement between physician/practice self-report on the MHSS and the NCQA final score. Percent agreement for each factor (yes/no response) was calculated for all appropriate factors in the element. The average percent agreement and distribution across the factors in each element was then examined.

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
These data show the average, minimum, maximum and standard deviation of percent agreement between the practice self-report and NCQA final score for factors in each element. (Note: some factors in the 2008 MHSS survey version were not binary response, therefore percent agreement was not calculated.)

Mean; Min; Max; Stdev
MHSS Composite 1: Access and Communication
1A: 87.61%; 73.61%; 94.44%; 6.01%
1B: 74.31%; 65.97%; 82.64%; 7.67%
3C: 82.29%; 79.86%; 86.11%; 2.69%
4A: 84.03%; 77.78%; 90.28%; --
9A: 93.52%; 91.67%; 95.83%; 1.43%

MHSS Composite 2: Identify and manage patient population
2A: 68.60%; 61.81%; 75.69%; 3.85%
2B: 91.10%; 86.81%; 93.75%; 2.40%
9B: 89.47%; 88.89%; 90.28%; 0.68%
2F: 73.81%; 69.44%; 78.47%; 2.77%

MHSS Composite 3: Plan and manage care
3A: 78.24%; 75.00%; 82.64%; 3.95%

MHSS Composite 4: Provide Self-Care Support and Community Resources
No binary variables available for analysis

MHSS Composite 5: Track and Coordinate Care
6B: 90.02%; 82.64%; 95.14%; 4.30%
7A: 83.51%; 78.47%; 88.89%; 4.30%
3E: 71.18%; 59.72%; 84.03%; 7.73%

MHSS Composite 6: Measure and Improve Performance
8A: 83.33%; 77.78%; 87.5; 4.087521
8B: 85.42%; 75.00%; 90.28; 7.104779
8C: 77.08%; 70.83%; 83.33; --
8D: 75.00%; 73.61%; 76.39; --

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

2b1.1 Describe how the measure specifications *(measure focus, target population, and exclusions)* are consistent with the evidence cited in support of the measure focus (*criterion 1c)* and identify any differences from the evidence:
The evidence is consistent with the focus and scope of this measure. In late 2011,NCQA released the most recent version of the MHSS survey (seen above) which added some new elements, strengthened existing elements and reorganized elements. Given the newness of this survey version, we do not yet have available data to show how practices perform on these exact elements. Therefore, we are providing to NQF practice performance data using the previously NQF-endorsed version of the survey (2008 MHSS). The 2008 MHSS elements have been mapped to the new 2011 MHSS elements where available. Below is a crosswalk showing the MHSS 2011 element mapped to the corresponding 2008 MHSS element where possible.

MHSS 2011 Element – MHSS 2008 Element
Composite 1: Enhance Access and Continuity
1A.Access during office hours - 1A/1B.Access and Communication Processes and Results
1B. After-hours access - 1A/1B.Access and Communication Processes and Results

1C.Electronic Access - 9A. Availability of Interactive Website
1D.Continuity - 1A/B.Access and Communication Processes and Results
1E.Medical Home Responsibilities - NEW
1F.Culturally and Linguistically Appropriate Services - NEW
1G.The Practice Team – 3C.Practice Organization

Composite 2: Identify and Manage Patient Populations
2A. Patient Information - 2A.Basic System for Managing Patient Data
2B. Clinical Data - 2B/C/D.Presence, Use and Organization of Electronic System for Clinical Data
2C. Comprehensive Health Assessment - NEW
2D. Data for Population Management - 2F. Use of System for Population Management and 9B. Electronic Patient Identification

Composite 3: Plan and Manage Care
3A.Implement Evidence-Based Guidelines - 3A. Guidelines for Important Conditions
3B. Identify High-Risk Patients - NEW
3C. Care Management - 3D.Care Management for Important Conditions
3D. Medication Management - 3D.Care Management for Important Conditions
3E. Use of Electronic Prescribing - 5A.Electronic prescription writing

Composite: Provide Self-Care Support and Community Resources
4A.Support Self-Care Process – 4A/B. Documenting Communication Needs and Self-Management Support
4B. Provide Referrals to Community Resources - NEW

Composite 5: Track and Coordinate Care
5A.Test Tracking and Follow-up - 6A/B.Test Tracking and Follow-up and Electronic System for Managing Tests
5B. Referral Tracking and Follow-up - 7A.Referral Tracking
5C. Coordinate with Facilities and Manage Care Transitions - 3E.Continuity of Care

Composite 6: Measure and Improve Performance
6A. Measure Performance - 8A.Measures of Performance
6B. Measure Patient/Family Experience - 8B.Patient Experience Data
6C. Implement Continuous Quality Improvement - 8D.Setting Goals and Taking Action
6D.Tracking results over time - 8E.Reporting Standardized Measures
6E.Report Performance - 8C.Reporting to Physicians
6F. Report Data Externally - 8F.Electronic Reporting External Entities

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

2b2.1 **Data/Sample** *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
See data element validity testing above (Section 2a).
NCQA tested the measure for face validity using a panel of stakeholders with specific expertise in measurement. The MHSS 2011 is a revised version of the previously endorsed NQF measure PPC-PCMH. Below we describe the process behind the revisions to the previously endorsed composite measure.

2b2.2 **Analytic Method** *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
The MHSS survey element development was a rigorous process that included significant research; input from an engaged, multi-stakeholder advisory committee and from many others; results of an open public comment period; and interviews with NCQA Recognized practices.

PCMH Advisory Committee
In the latter half of 2009, we created the PCMH Advisory Committee, a diverse, 22-member committee composed of practice, medical association, physician group, health plan and consumer and employer group representatives. The committee met throughout 2010 to discuss and analyze draft survey elements, MHSS data analysis and public comment results. The committee

was charged with "raising the bar" by emphasizing continuity and coordination of care, making standards and explanations more inclusive of pediatric practices and streamlining the documentation requirements. NCQA's goal for the MHSS 2011 survey was to move the transformation of primary care practices forward while ensuring that official NCQA PCMH Recognition is within reach of practices of varying sizes, configurations (e.g., solo, multi-site, community health center), electronic capabilities, populations served and locations (e.g., urban, rural). . Experts reviewed the results of the field test and assessed whether the results were consistent with expectations, whether the measure represented (See attachment for list of PCMH advisory committee members).

Public Comment
We posted the draft survey elements on the NCQA Web site and solicited comments from a wide group of stakeholders. We received comments from more than 200 respondents, including health care providers, health plans, consumer groups and government agencies. There was a high degree of support for the proposed standards, especially the increased emphasis on patient-centered, team-based care coordinated across the health care system. In addition to the formal public comment period, we received useful suggestions from others for further revisions and changes, which we incorporated into the final version of the survey after review by our stakeholder advisory committee and the NCQA Board of Directors. Many organizations expressed interest in using the new survey, including primary care associations, community health centers, the Health Resources and Services Administration (HRSA)/Bureau of Primary Health Care (BPHC), the Veterans Administration, the Department of Defense Tri-Care Services, state-led demonstration projects and multi-payer demonstration projects.

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:
These measures were deemed valid by the expert panel.

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

If the component measures are combined at the patient level, complete 2b
2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

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

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

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

If the component measures are combined at the patient level and include outcomes, complete 2e
2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
N/A

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

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

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: N/A

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

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
In late 2011, NCQA released the most recent version of the MHSS survey (seen above) which added some new elements, strengthened existing elements and reorganized elements. Given the newness of this survey version, we do not yet have available data to show how practices perform on these exact elements. Therefore, we plan to provide to NQF practice performance data using the previously NQF-endorsed version of the survey (2008 MHSS). The performance data for 2011 shown below are the practices which submitted surveys in 2011 during the last opportunity to use the 2008 MHSS survey (January-October 2011). See section 1b.1 for a crosswalk between the 2011 version and the 2008 version (see also attachment 2008 2011 MHSS Crosswalk).
A random sample of 1426 practices that applied for NCQA recognition between 2008 and 2011 using the 2008 MHSS survey version.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
Performance on the MHSS can be examined in many ways. Previous publications have examined element-level performance (i.e. percent of practices passing element based on achieving at least 50% of factors within the element). Chi-square analysis was used to test for significant differences across practice size category. Given the number of comparisons being made, results were considered significant at a p-value of less than 0.0001 (see Scholle 2011).
Performance on the MHSS can also be examined at the composite level using the scoring algorithm described in section 2a1.25. Comparison of means and percentiles can be tested using analysis of variance (ANOVA). Below we show scores on the MHSS over the past four years and identify statistically significant differences (p<0.001 based on correction for multiple comparisons).

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
Composite 1 Enhance Access and Continuity (Possible Points: 17)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 10.42; 11.62; 11.02; 12.75
Stdev: 3.15; 3.50; 3.99; 2.03
Min: 0; 1; 0; 9
Max: 16.5; 17; 17; 16.75
P10: 7; 6.5; 4; 10
P25: 8; 9.75; 9; 11.25
P50: 10.5; 12.25; 12; 12
P75: 12.75; 13.75; 14; 14
P90: 14.75; 16; 15; 15.75
F=9.60; p<0.0001; significant difference across years

Composite 2 Identify and Manage Patient Populations (Possible Points: 19)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 11.43; 14.29; 14.04; 15.44
Stdev: 5.62; 3.57; 4.44; 2.08
Min: 0; 1.5; 0; 7.5
Max: 19; 19; 19; 19
P10: 1.5; 8.25; 6; 13.5
P25: 8.88; 12.75; 13.25; 15.5
P50: 13.5; 15.5; 15.5; 16.25
P75: 15.5; 16.75; 17; 16.25

P90: 17; 17; 17.75; 17
F=15.49; p<0.0001; significant difference across years

Composite 3 Plan and Manage Care(Possible Points 16)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 9.07; 11.82; 11.37; 13.75
Stdev: 4.86; 3.71; 3.92; 2.33
Min: 0; 0; 0; 3
Max: 16; 16; 16; 16
P10: 1.5; 5.75; 5; 11
P25: 6.13; 9.25; 8.25; 13.25
P50: 8.75; 13; 12.5; 14.75
P75: 13.25; 15.25; 14.75; 15.5
P90: 15.38; 15.5; 15.5; 15.5
F=24.07; p<0.0001; significant difference across years

Composite 4 Provide Self-care Support and Community Resources (Possible Points 4)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 2.33; 2.90; 2.57; 3.48
Stdev: 1.67; 1.32; 1.54; 0.75
Min: 0; 0; 0; 2
Max: 4; 4; 4; 4
P10: 0; 0; 0; 2
P25: 0; 2; 2; 3
P50: 3; 3; 3; 4
P75: 4; 4; 4; 4
P90: 4; 4; 4; 4
F=16.98; p<0.0001; significant difference across years

Composite 5 Track and Coordinate Care (Possible Points 22)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 12.68; 16.18; 16.81; 18.51
Stdev: 7.33; 5.77; 5.04; 2.92
Min: 0; 0; 0; 7.5
Max: 22; 22; 22; 22
P10: 3.75; 7; 7.75; 15.5
P25: 7; 13.25; 14.75; 16.25
P50: 14.38; 17.5; 18.25; 19.25
P75: 19.63; 21; 21; 21
P90: 21; 22; 22; 22
F=18.29; p<0.0001; significant difference across years

Composite 6 Measure and Improve Performance (Possible Points 15)
Year: 2008; 2009; 2010; 2011
N: 80; 513; 730; 103
Mean: 10.74; 11.68; 11.91; 12.90
Stdev: 3.44; 3.28; 3.32; 1.56
Min: 0; 0; 0; 7.5
Max: 15; 15; 15; 15
P10: 7.5; 6; 7.75; 11
P25: 9; 10.5; 10.5; 12

P50: 11.13; 12.5; 12.75; 13.5
P75: 13.5; 14.75; 15; 14
P90: 14.88; 15; 15; 15
F=7.06; p=0.0001; significant difference across years

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

2b6.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
This measure has not been compared across data sources.

2b6.2 Analytic Method *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure)*:
N/A

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted)*:
N/A

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

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: N/A

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
There have been a number of concerns about the ability of small practices to implement the medical home. In light of these concerns, NCQA conducted an analysis of its database of PCMH recognized practices to determine if there were differences in the capabilities and level of recognition by practice size. Both large and small practices demonstrated capabilities related the PCMH's goals of accessible, coordinated, and patient-centered care (57% of recognized NCQA recognized PCMH practices in 2008 had fewer than 5 physicians). However, practices affiliated with larger organizations achieve higher levels of PCMH recognition compared to unaffiliated small practices, particularly in the use of data for population management and patient self-management.

2.1-2.3 Supplemental Testing Methodology Information:
Attachment
Attachment 2 MHSS 2008 2011 Crosswalk LONG.docx

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

If the Committee votes No, STOP

3. USABILITY

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

C.1 Intended Purpose/ Use *(Check all the purposes and/or uses for which the measure is intended)*: Professional Certification or Recognition Program, Public Reporting, Quality Improvement (Internal to the specific organization), Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

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

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I ☐
(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. **Use in Public Reporting - disclosure of performance results to the public at large** *(If used in a public reporting program, provide name of program(s), locations, Web page URL(s)).* If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [*For Maintenance – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.*]
This measure is used by NCQA in public reporting on the NCQA website.
www.ncqa.org
Additionally, several elements in the measure are publically reported by CMS for "meaningful use" (see attachment MHSS Meaningful Use Crosswalk).

3a.2.**Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting.** If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: NCQA provides information about recognized PCMH practices using the MHSS tool. To become a NCQA recognized PCMH, practices must apply using the MHSS and provide the accompanying documentation. Trained NCQA surveyors score practices based on the documentation and determine the level of PCMH recognition based on sum of composite scores (0-100). NCQA's PCMH program is acknowledged as the primary standardized method for evaluating a practice's capability of performing as a patient-centered medical home. Across the country, public and private payers, purchasers and clinicians have created pilot and demonstration programs. Many programs provide financial incentives, such as pay for performance and reimbursement for services beyond the patient visit, which have motivated primary care practices to engage in the transformation that leads to NCQA PCMH Recognition.

3.2 **Use for other Accountability Functions (payment, certification, accreditation).** If used in a public accountability program, provide name of program(s), locations, Web page URL(s): NCQA uses the MHSS to determine eligibility for the NCQA PCMH recognition program.

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

3b.1. **Use in QI.** If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[*For Maintenance – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement*].
Primary care is a foundation of the health care system. The MHSS reflect elements that make primary care successful. Primary care clinicians are often the first point of contact for an individual; thus, patient access to care is an important issue. Clinicians must have a broad knowledge of many health care conditions and often follow their patients over years; thus, the quality of the clinician/patient relationship and the clinician's ability to track care over time are also important. Many primary care clinicians need to refer patients to specialists; thus, communication among providers is important—and often challenging.
Although the earlier MHSS surveys addressed many of these issues, MHSS 2011 strengthens and adds to existing elements. We revised the standards to be clearer and more specific, and some practices may find the program more challenging. Through a comprehensive review of new evidence on effective care practices, NCQA MHSS 2011 Advisory Committee discussions, feedback on our earlier programs and a public comment period, we have taken the program to a new level.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
NCQA clearly communicates an action plan for becoming a patient-centered medical home. The PCMH standards are available on the NCQA Web site at no cost, and we conduct educational programs around the country that discuss the program and how it works. By the end of 2010, participation in one of the two earlier versions of the PCMH program had skyrocketed: more than 7,600 clinicians at more than 1,500 practices across the country had earned PCMH Recognition.

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

4. FEASIBILITY

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

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

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are:
generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition, Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry), Other
The Medical Home System Survey asks for physician or practice self-report of processes and structures with accompanying documentation. The documentation required for each factor varies. Examples of documentation include: written evidence of documented process within a practice, record of response times for phone calls and electronic messages, defined sample of patient records, patient education materials, reports from electronic system for patient health information, and screen shots of electronic resources. A complete list of documentation can be found in the attached Specifications.

4b. Electronic Sources: H☐ M☐ L☐ I ☐

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

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

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

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
NCQA reserves the right to audit any practice that has applied for NCQA Recognition while the practice's application is under review. An audit validates documentation, stated procedures and responses given by a practice in its application and Survey Tool. NCQA audits 5 percent of practices, either by specific criteria or randomly before making a decision about whether the practice meets PCMH requirements. Audits may be completed by e-mail, teleconference, Webinar, onsite review or by other electronic means. Failure to agree to an audit, failure to pass an onsite audit or failure to pass an audit of Survey Tool responses and documented elements may result in a status of "Not Recognized."

Practice sites selected for audit are notified and sent instructions. The first level of review is verification of the Survey Tool submitted by the practice. The practice may be asked to forward copies of the source documents and explanations, to substantiate the information in the Survey Tool submitted with its application.
If the application is verified and no issues are discovered, the practice is notified that the audit is complete and the application for Recognition is processed. If an audit requires an onsite review, NCQA conducts the review within 30 calendar days of notifying the practice of its intent to conduct an audit. If audit findings indicate that the information submitted by the practice is incorrect or that the documentation does not meet the PCMH standards, the application for NCQA Recognition may be denied, scores may be reduced or additional documentation may be required. NCQA staff notify the practice of audit findings and the recognition decision within 30 days after conclusion of the audit. A practice whose application for recognition is denied because of an audit may request Reconsideration of the decision.

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

A.2 Please check if either of the following apply (*regarding proprietary measures*): Proprietary measure
4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues *(e.g., fees for use of proprietary measures)*:
The 2011 MHSS redesigned survey includes many clarifications and simplifications based on 3 years of feedback from PCMH practices. The MHSS Survey Tool has the capability for the practice to attach supplemental documentation that supports their self-reports on medical home capabilities. The survey tool provides suggestions, without being prescriptive, types of documentation that demonstrate the presence of the capability, such as documentation of policies and procedures, reports from practice management systems, and chart reviews. When used with NCQA's Web-based Survey Tool, the documentation can be attached in the same manner as documents are attached to e-mail. Trained staff review that the documentation demonstrates the presence and use of

the required capability. This approach produces reliable results and reduces costs associated with on-site audits.
NCQA conducted a survey of applicants that have used the MHSS tool and found that it often takes practices months to prepare to apply. Most of this time is spent putting in place the capabilities required for meet the standards. Responding to questions in the Web-based survey itself takes as little as several hours. The time-consuming tasks involve creating systems and processes, collecting documents and attaching or entering relevant documentation. Responses to the NCQA survey have listed that creating and attaching the supporting documentation can take up to 40 hours. Generally, the documentation that is submitted as part of the application is performed by office staff who are very familiar with practice systems and processes and not by physicians. NCQA finds that the process goes much more smoothly if the practice participates initially in Webinars (offered by NCQA at no cost) to explain program requirements and how the data collection tool works. NCQA have found that participating in the assessment of practice systems and process is a new activity for many practices and some require significant support from NCQA staff. Many states have been experimenting with providing central agencies to aid practices in the process of becoming a recognized PCMH. NCQA is continuously involved in self-assessment and research to make the recognition process as clear and simple as possible while ensuring the MHSS is reliable and valid for each practice.

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

OVERALL SUITABILITY FOR ENDORSEMENT

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

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

5. COMPARISON TO RELATED AND COMPETING MEASURES

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

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

5a. Harmonization

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

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

5b. Competing Measure(s)

5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s):
Describe why this measure is superior to competing measures *(e.g., a more valid or efficient way to measure quality);* OR provide a rationale for the additive value of endorsing an additional measure. *(Provide analyses when possible)*:
No related measures.

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

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2008
Ad.4 Month and Year of most recent revision: 11, 2011
Ad.5 What is your frequency for review/update of this measure? Approximately every 3 years
Ad.6 When is the next scheduled review/update for this measure?

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Ad.8 Disclaimers: These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.

THE MEASURES AND SEPCIFICATIONS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND.

Ad.9 Additional Information/Comments:

Date of Submission (*MM/DD/YY*): 02/07/2012

NCQA's Medical Home System Survey (MHSS) 2011 Specifications

1/24/12

MHSS 1: Enhance Access and Continuity 20 points

The practice provides access to culturally and linguistically appropriate routine care and urgent team-based care that meets the needs of patients/families.

Element A: Access During Office Hours			**4 points**
The practice has a written process and defined standards, *and* demonstrates that it monitors performance against the standards for:	**Yes**	**No**	**NA**
1. Providing same-day appointments	☐	☐	
2. Providing timely clinical advice by telephone during office hours	☐	☐	
3. Providing timely clinical advice by secure electronic messages during office hours	☐	☐	☐
4. Documenting clinical advice in the medical record.	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 3 factors, including factor 1	The practice meets 2 factors, including factor 1	The practice meets factor 1	The practice meets no factors or does not meet factor 1

Explanation

Patients can access the clinician and care team for routine and urgent care needs by office visit, by telephone and through secure electronic messaging. Practice staff considers patient care needs and preferences when determining the urgency of patient requests for same-day access. For all factors, the practice must provide their defined standards or policies with a date of implementation (must be in effect at least 3 months) **and** demonstrate they have monitored performance against the standards they have defined.

Factor 1*:* The practice reserves time for same-day appointments (also referred to as "open access," "advanced access" or "same-day scheduling") for routine and urgent care based on patient preference or triage. Adding ad hoc or unscheduled appointments to a full day of scheduled appointments does not meet the requirement.

An example of a measure of access is "third next available appointment," with an open-access goal of zero days (same-day availability). **Third next available appointment** measures the length of time from when a patient contacts the practice to request an appointment, to the third next available appointment on his/her clinician's schedule. The practice may measure availability for a variety of appointment types including urgent care, new patient physicals, routine exams and return-visit exams.

Factor 1 has been identified as a **critical factor** and must be met for practices to receive any score on the element.

Factors 2 and 3: Clinicians return calls or respond to secure electronic messages in a timely manner*,* as defined by the practice to meet the clinical needs of the patient population. Factors 2 and 3 require the practice to define the time frame for a response, ***and*** monitor the timeliness of the response against the practice's standard.

Patients can seek and receive interactive clinical advice by telephone (factor 2) and secure electronic communication (factor 3) (e.g., electronic message, Web site) during office hours. **Interactive** means that questions are answered by an individual, not just a recorded message.

Factor 3 is NA if the practice does not have the capability to communicate electronically with patients.

Factor 4*:* Clinical advice must be documented in the patient record, whether it is provided by phone or secure electronic message.

Documentation

Factor 1: The practice has a documented process for staff to follow for scheduling same-day appointments ***and*** has a report that covers at least five days showing the availability of same-day appointments throughout the practice. The practice may provide a report showing the average third next available appointment.

Factor 2: The practice has a documented process for staff to follow for providing timely clinical advice by telephone (including the practice's definition of 'timely') *and* has a report summarizing its actual response times. The report may be system generated or collected based on at least five days of calls.

Factor 2 requires the practice to:

- Define the time frame for a response, ***and***
- Monitor the timeliness of the response against the practice's standard.

Factor 3: The practice has a documented process for staff to follow for providing timely clinical advice using a secure, interactive electronic system (including the practice's definition of 'timely') *and* has a report summarizing its actual response times. The report may be system generated or collected based on at least one week of electronic messages.

Factor 3 requires the practice to:

- Define the time frame for a response, ***and***
- Monitor the timeliness of the response against the practice's standard.

Factor 4: The practice has a documented process for staff to follow for entering phone and electronic message clinical advice in the patient record ***and*** provides at least three examples of clinical advice documented in a patient record ***or*** generates a report identifying how often advice is documented in the medical record. The report must provide the percentage of patients with clinical advice documented in the medical records of those patients who received clinical advice within ***a recent one-month period.***

- *Denominator =* Number of patients receiving clinical advice
- *Numerator =* Number of patients with clinical advice documented in the medical record

Element B: After-Hours Access			**4 points**
The practice has a written process and defined standards, and demonstrates that it monitors performance against the standards for:	**Yes**	**No**	**NA**
1. Providing access to routine and urgent-care appointments outside regular business hours	☐	☐	
2. Providing continuity of medical record information for care and advice when the office is not open	☐	☐	
3. Providing timely clinical advice by telephone when the office is not open	☐	☐	
4. Providing timely clinical advice using a secure, interactive electronic system when the office is not open	☐	☐	☐
5. Documenting after-hours clinical advice in patient records.	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets all 5 factors, including factor 3	The practice meets 4 factors, including factor 3	The practice meets 3 factors, including factor 3	The practice meets 1-2 factors **or** meets 3-4 factors but not factor 3	The practice meets no factors

Explanation

Patients can access the clinician and care team for routine and urgent care needs by office visit, by telephone and through secure electronic messaging. Practice staff considers patient care needs and preferences when determining the urgency of patient requests for same-day access. For all factors, the practice must provide their defined standards or policies with a date of implementation (must be in effect at least 3 months) **and** demonstrate they have monitored performance against the standards they have defined.

<u>Factor 1:</u> The practice offers access to routine and non-routine care beyond regular business hours, such as early mornings, evenings or weekends. Appointment times are based on the needs of the patient population. If the practice does not provide care beyond regular office hours (e.g., a small practice with limited staffing), it may arrange for patients to receive care from other (non-ER) facilities or clinicians.

<u>Factor 2:</u> Patient clinical information is available to on-call staff and external facilities for after-hours care. Information may be provided by patients with individualized care plans or portable personal health records, or may be accomplished through access to an electronic health record (EHR). If care is provided by a facility that is not affiliated with the practice or does not have access to patient records, the practice makes provisions for patients to have an electronic or printed copy of a clinical summary of their medical record. Telephone consultation with the primary clinician or with a clinician with access to the patient's medical record is acceptable.

<u>Factors 3 and 4:</u> Patients can seek and receive interactive clinical advice by telephone (factor 3) and secure electronic communication (factor 4) (e.g., electronic message, Web site) when the office is closed. **Interactive** means that questions are answered by an individual, not just a recorded message.

The ability of patients to receive clinical advice from the practice or others, such as a service, designated by the practice when the office is not open reduces patient use of the emergency room and provides more patient-centered care. Thus, Factor 3 has been identified as a **critical factor** and must be met for practices to score higher than 25 percent on this element.

Factor 4 is NA if the practice does not have the capability to communicate electronically with patients.

Factor 5: After-hours clinical advice must be documented in the patient record, whether it is provided by telephone or secure electronic message.

Documentation

Factor 1: The practice has a documented process for staff to follow for arranging after-hours access with other practices or clinicians ***and*** provides a report showing after-hours availability ***or*** materials communicating practice hours. A process for arranging after-hours access is not required if the practice has regular extended hours.

Factor 2: The practice has a documented process for staff to follow for making medical record information available for after-hours care.

Factor 3: The practice has a documented process for staff to follow for providing timely clinical advice by telephone when the office is closed *and* has a report summarizing its actual response times. The report may be system generated or collected based on at least five days of calls.

Factor 3 requires the practice to:

- Define the time frame for a response, ***and***
- Monitor the timeliness of the response against the practice's standard.

Factor 4: The practice has a documented process for staff to follow for providing timely clinical advice using a secure interactive electronic system when the office is closed *and* has a report summarizing its actual response times. The report may be system generated or collected based on at least five days of electronic messages.

Factor 4 requires the practice to:

- Define the time frame for a response, ***and***
- Monitor the timeliness of the response against the practice's standard.

Factor 5: The practice has a documented process for staff to follow for documenting after-hours clinical advice in the patient record *and* has at least three examples of clinical advice documented in the patient record ***or*** generates a report identifying how often advice is documented in the medical record. The report must provide the percentage of patients with clinical advice documented in the medical record of those patients who received after-hours clinical advice within a recent *one-month period.*

- *Denominator =* Number of patients receiving after-hours clinical advice
- *Numerator =* Number of patients with after-hours clinical advice documented in the medical record

Element C: Electronic Access 2 points

The practice provides the following information and services to patients and families through a secure electronic system.	Yes	No	NA
1. More than 50 percent of patients who request an electronic copy of their health information (including problem list, diagnoses, diagnostic test results, medication lists, allergies) receive it within three business days[+]	☐	☐	☐
2. At least 10 percent of patients have electronic access to their current health information (including lab results, problem lists, medication lists, and allergies) within four business days of when the information is available to the practice[++]	☐	☐	
3. Clinical summaries are provided to patients for more than 50 percent of office visits within three business days[+]	☐	☐	
4. Two-way communication between patients/families and the practice	☐	☐	
5. Request for appointments or prescription refills	☐	☐	
6. Request for referrals or test results	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 5-6 factors	The practice meets 3-4 factors	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

[+]Core meaningful use requirement

[++]Menu meaningful use requirement

Element C assesses the practice's ability to offer information and services to patients and their families via a secure electronic system. Patients should be able to view their medical record, access services and communicate with the health care team electronically. Practices with a Web site or patient portal should provide the URL.

Factor 1: More than 50 percent of patients (and others with legal authorization to the information) who request an electronic copy of their health information (including problem lists, diagnoses, diagnostic test results, medication lists, allergies) are given one within three business days. Factor 1 addresses the capabilities of the electronic system used by the practice; it does not address legal issues of access to medical record information, such as by guardians, foster parents or caregivers of pediatric patients, or teen privacy rights. If a practice has no requests from patients or families for an electronic copy of patient health information during the EHR reporting period the practice may respond N/A. If N/A is selected for Factor 1, the practice must provide an explanation.

Factor 2: Patients are provided timely electronic access to their health information (including lab results, problem lists, medication lists, allergies). To receive credit for this factor, at least 10 percent of the practice's patients must have access to the practice's electronic system (e.g., be registered on the practice Web site or portal) within four business days of when the information is available to the practice.

Factor 3: An **electronic clinical summary** is a summary of a visit that includes, when appropriate, diagnoses, medications, recommended treatment and follow-up. Federal meaningful use rules require that summaries be provided for more than 50 percent of office visits within three business days, either by secure electronic message or as a printed copy from the practice's electronic system. Patients may be notified that the information is available through a secure, interactive system such as a Web site or patient portal. If the summary is available electronically, the practice must provide the patient with a paper copy upon request.

Factor 4: The practice has a secure, interactive electronic system, such as a Web site, patient portal or a secure e-mail system, allowing two-way communication between patients/families and the practice.

Factor 5: Patients can use the secure electronic system (e.g., Web site or patient portal) to request appointments or medication refills.

Factor 6: Patients can use the secure electronic system (e.g., Web site or patient portal) to request referrals or test results.

Documentation

Factors 1–3: The practice provides a report based on a numerator and denominator for a recent 12 months of data in the electronic system. If the practice does not have 12 months of data (e.g., due to more recent system implementation), it may use a recent 3-month period for the calculation.

Factor 1: The practice provides a report showing the percentage of patients who got an electronic copy of health information within three business days of their request.

- *Denominator =* Number of patients who request an electronic copy of their electronic health information
- *Numerator =* Number of patients in the denominator who receive an electronic copy of their electronic health information within three business days.

Factor 2: The practice provides a report showing the percentage of patients who were given electronic access to requested health information within four business days of it being available to the practice.

- *Denominator =* Number of patients seen by the practice
- *Numerator =* Number of patients in the denominator who have timely (available to the patient within four business days of being updated in the certified EHR technology) electronic access to their health information.

Factor 3: The practice provides a report showing the percentage of office visits for which electronically-generated clinical summaries were provided to patients within three business days.

- *Denominator =* Number of office visits
- *Numerator =* Number of office visits in the denominator for which patients were provided a clinical summary of their visit within three business days.

Factors 4–6: Require the practice to provide a screen shot demonstrating system capability.

Factor 4: The practice provides a screen shot of the secure two-way communication system demonstrating its implementation in the practice.

Factor 5: The practice provides a screen shot of a Web page where patients can request medication refills or appointments, demonstrating its implementation in the practice.

Factor 6: The practice provides a screen shot of a Web page where patients can request referrals or test results, demonstrating its implementation in the practice.

Element D: Continuity	**2 points**

The practice provides continuity of care for patients/families by:	**Yes**	**No**
1. Expecting patients/families to select a personal clinician	☐	☐
2. Documenting the patient's/family's choice of clinician	☐	☐
3. Monitoring the percentage of patient visits with a selected clinician or team.	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 3 factors	No scoring option	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

A **team** is a primary clinician and the associated clinical and support staff who work with the clinician. A team may also represent a medical residency group assigned under a supervising physician.

The practice provides continuity of care by allowing patients and their families to select a personal clinician who works with a defined health care team, and by documenting the selection. All practice staff are aware of a patient's personal clinician or team and work to accommodate visits and other communication. The practice monitors the proportion of patient visits with the designated clinician or team.

Note: *Solo practitioners should mark "yes" for each factor and indicate in the survey tool Comments/Text box that there is only one primary clinician in the practice.*

Factors 1 and 2: The practice notifies patients about the process for choosing a personal clinician and care team and supports the selection process by discussing the importance of having a clinician and care team responsible for coordinating care. The practice documents the patient/family's choice of clinician and practice team.

Factor 3: The practice monitors the percentage of patient visits that occur with the selected clinician and team. The practice may include structured electronic visits (e-visits) or phone visits within these statistics if relevant.

Documentation

Factor 1: The practice has a documented process for patient/family selection of a personal clinician.

Factor 2: The practice has a screen shot from its electronic system, showing documentation of patient/family choice of clinician.

Factor 3: The practice has a report with at least one week of data, showing the total proportion of patient encounters that occurred with the selected personal clinician or team.

Element E: Medical Home Responsibilities 2 points

The practice has a process and materials that it provides patients/families on the role of the medical home, which include the following.	**Yes**	**No**
1. The practice is responsible for coordinating patient care across multiple settings	☐	☐
2. Instructions on obtaining care and clinical advice during office hours and when the office is closed	☐	☐
3. The practice functions most effectively as a medical home if patients/families provide a complete medical history and information about care obtained outside the practice	☐	☐
4. The care team gives the patient/family access to evidence-based care and self-management support	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 3 factors	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

The practice has a process for giving patients/families information on the obligations of the medical home and the responsibilities of the patient and family as partners in care. Care team roles are explained to patients/families. The practice is encouraged to provide information in multiple formats to accommodate patient preference and language needs.

Factor 1: The practice is concerned about the range of a patient's health (i.e., "whole person" orientation, including behavioral health) and is responsible for coordinating care across settings.

Factor 2: The practice provides information about its office hours; where to seek after-hours care; and how to communicate with the personal clinician and team, including requesting and receiving clinical advice during and after business hours.

Factor 3: To effectively serve as a medical home, the practice must have comprehensive patient information such as medications; visits to specialists; medical history; health status; recent test results; self-care information; and data from recent hospitalizations, specialty care or ER visits.

Factor 4: Patients can expect evidence-based care from their clinician and team, as well as support for self-management of their health and health care.

Documentation

- The practice has a **process** for giving patients information and materials about the obligations of a medical home, ***and***
- Has **materials it provides to patients**, such as:
  - Patient brochure
  - Written statement for the patient and family
  - Link to online video

  - Web site
  - Patient compact (a written agreement between the patient/family and the practice specifying the role of the medical home practice and the patient/family)

NCQA requests that the practice highlight, label or otherwise identify the information relevant to each factor in the documentation.

Element F: Culturally and Linguistically Appropriate Services (CLAS)			**2 points**
The practice engages in activities to understand and meet the cultural and linguistic needs of its patients/families by:	**Yes**	**No**	**NA**
1. Assessing the racial and ethnic diversity of its population	☐	☐	
2. Assessing the language needs of its population	☐	☐	
3. Providing interpretation or bilingual services to meet the language needs of its population	☐	☐	
4. Providing printed materials in the languages of its population	☐	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 3 factors	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

Factors 1 and 2: The practice uses data to assess the cultural and linguistic needs of its population in order to address those needs adequately. This may be information collected by the practice directly from all patients or by using data that is available about the local community it serves.

Factor 3: Language services may include third-party interpretation services or multilingual staff. Under Title VI of the Civil Rights Act, clinicians who receive federal funds are responsible for providing language and communication services to their patients as required to meet clinical needs. Requiring a friend or family member to interpret for the patient does not meet the intent of this standard. Studies demonstrate that patients are less likely to be forthcoming with a family member present, and the family member may not be familiar with medical terminology. A third party tends to be more objective.

Factor 4: The practice identifies individual languages spoken by at least 5 percent of its patient population and makes materials available in those languages. The practice provides the forms that patients are expected to sign, complete or read for administrative or clinical needs to patients with limited English proficiency in the native language of the patient.

Factor 4 is NA if the practice provides documentation that no single language (other than English) is spoken by 5 percent or more of its patient population. The practice must provide a written explanation for an NA response.

Documentation

Factors 1 and 2: The practice provides a report showing its assessment of the racial, ethnic and language composition of its patient population.

Factor 3: The practice provides documentation the availability of interpretive services, or has a policy or statement that it uses bilingual staff. The policy or statement explains the practice’s procedures when a patient needs assistance in a language not spoken by bilingual staff.

Factor 4: The practice provides or shows access to materials in languages other than English, a screenshot of a link to online materials or a Web site in languages other than English.

Element G: The Practice Team — 4 points

The practice uses a team to provide a range of patient care services by:	Yes	No
1. Defining roles for clinical and nonclinical team members	☐	☐
2. Having regular team meetings or a structured communication process	☐	☐
3. Using standing orders for services	☐	☐
4. Training and assigning care teams to coordinate care for individual patients	☐	☐
5. Training and assigning care teams to support patients and families in self-management, self-efficacy and behavior change	☐	☐
6. Training and assigning care teams for patient population management	☐	☐
7. Training and designating care team members in communication skills	☐	☐
8. Involving care team staff in the practice's performance evaluation and quality improvement activities	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets 7-8 factors, including factor 2	The practice meets 5-6 factors, including factor 2	The practice meets 4 factors, including factor 2	The practice meets 2-3 factors **or** meets 3-7 factors but not factor 2	The practice meets 0-1 factors

Explanation

Managing patient care is a team effort that involves clinical and nonclinical staff (e.g., physicians, nurse practitioners, physician assistants, nurses, medical assistants, educators, schedulers) interacting with patients and working to achieve stated objectives.

Factor 1: Job descriptions and responsibilities emphasize a team-based approach to care.

Factor 2: Team meetings may include daily huddles or review of daily schedules, with follow-up tasks. A **huddle** is a team meeting to discuss patients on the day's schedule. (Idaho Primary Care Association, http://idahopca.org/programs-services/patient-centered-medical-home-initiative/patient-centered-medical-home-resources). A structured communication process may include regular e-mail exchanges, tasks or messages about a patient in the medical record.

Excellent communication and coordination among the members of the team has been found to be a critical feature of successful patient-centered practices. Thus, Factor 2 has been identified as a **critical factor** and must be met for practices to score higher than 25 percent on this element.

Factor 3: Standing orders (e.g., testing protocols, defined triggers for prescription orders, medication refills, vaccinations, routine preventive services) may be clinician preapproved or may be executed without prior approval of the clinician as permitted by state law.

Factor 4: Care coordination may include obtaining test and referral results and communicating with community organizations, health plans, facilities and specialists.

Factor 5: Care team members are trained in evidence-based approaches to self-management support, such as patient coaching and motivational interviewing.

Factor 6: Care team members are trained in the concept of population management and proactively addressing needs of patients and families served by the practice. **Population management** is assessing and managing the health needs of a patient population such as defined groups of patients (e.g., patients with specific clinical conditions such as hypertension or diabetes, patients needing tests such as mammograms or immunizations).

Factor 7: Care team members are trained on effective patient communication for all segments of the practice's patient population but particularly the vulnerable populations. **Vulnerable populations** are "those who are made vulnerable by their financial circumstances or place of residence, health, age, personal characteristics, functional or developmental status, ability to communicate effectively, and presence of chronic illness or disability," (AHRQ) and include people with multiple comorbid conditions or who are at high risk for frequent hospitalizations or ER visits. Training may include information on health literacy, or other approaches to addressing communication needs.

Factor 8: The care team receives performance measurement and patient survey data and is given the opportunity to identify areas for improvement and establish methods for quality improvement. This can include regular participation in quality improvement meetings or action plan development.

Documentation

Factors 1, 4–7: The practice provides staff position descriptions describing roles and functions.

Factor 2: The practice provides a description of its structured team communication processes that occur regularly *and* samples of meeting summaries, agendas or memos to staff.

Factor 3: The practice has written standing orders.

Factors 4–7: The practice has a description of its training process and training schedule or materials showing how staff is trained in each area identified in the factors.

Factor 8: The practice has a description of staff roles in the practice evaluation and improvement process, or minutes from team meetings showing staff involvement and describing staff roles.

NCQA encourages the practice to highlight the information relevant to each factor in the documentation.

MHSS 2: Identify and Manage Patient Populations 16 points

The practice systematically records patient information and uses it for population management to support patient care.

Element A: Patient Information 3 points

The practice uses an electronic system that records the following as structured (searchable) data for more than 50 percent of its patients.	Yes	No	NA
1. Date of birth+	☐	☐	
2. Gender+	☐	☐	
3. Race+	☐	☐	
4. Ethnicity+	☐	☐	
5. Preferred language+	☐	☐	
6. Telephone numbers	☐	☐	
7. E-mail address	☐	☐	
8. Dates of previous clinical visits	☐	☐	
9. Legal guardian/health care proxy	☐	☐	
10. Primary caregiver	☐	☐	
11. Presence of advance directives (NA for pediatric practices)	☐	☐	☐
12. Health insurance information	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 9-12 factors	The practice meets 7-8 factors	The practice meets 5-6 factors	The practice meets 3-4 factors	The practice meets 0-2 factors

Explanation

+Core meaningful use requirement

The practice uses a practice management, EHR or other electronic system that collects and records patient information for factors 1-12 in searchable data fields. To meet this element the practice must generate a report showing the percentage of patients seen by the practice for whom data were entered. “ Documentation in the medical record of “none”, “no”, “none” or “patient declined to provide information” counts toward the numerator. A data field should not be blank. Fields that have no data do not count. To qualify for Meaningful Use, the practice must meet the related factors using a *certified* EHR.

Factor 1: The practice records patient date of birth.

Factor 2: The practice records patient gender.

Factors 3 and 4: The practice records race and ethnicity data, in addition to language and age, which contributes to its ability to understand its patient population. The practice may align race and ethnicity categories with those used by the Office of Management and Budget (OMB). Patients who prefer not to provide race/ethnicity may be counted in the numerator if the practice documents their decision to decline to provide the information.

<u>Factor 5:</u> The practice documents the patient's preferred language. Patients are not required to discuss their language needs, but documentation helps identify patients who need interpretation and translation services. The practice must document that the patient declined to provide language information, that the patient's primary language is English or that the patient does not need language services. A blank field cannot be assumed to mean that the patient speaks English.

<u>Factor 6:</u> The patient's primary telephone number may be a mobile number.

<u>Factor 7:</u> The practice records patient e-mail addresses and should enter "none" in the field for patients who do not have an e-mail address or decline to provide one. This will count toward the numerator.

<u>Factor 8:</u> The practice enters dates of all office, electronic and telephone visits into the system. Visits (i.e., scheduled, structured encounters) are distinguished from electronic or telephone advice.

<u>Factor 9:</u> A **legal guardian** or **health care proxy** is an individual designated by the patient or family or by the courts to make health care decisions for the patient if the patient is unable to do so.

<u>Factor 10:</u> A **primary caregiver** provides day-to-day care for the patient and must receive instructions about care. Documentation of the primary caregiver should be in the health care record. The practice should enter "none" in the field if there is no caregiver. This will count toward the numerator.

<u>Factor 11:</u> There is documentation in the medical record that the patient/family gave the practice an advance directive (includes living wills, Physician Orders for Life Sustaining Treatment [POLST], durable power of attorney, health proxy). Practices with adult and pediatric patients may exclude pediatric patients from the denominator for this factor. Documentation in the field that the patient declined to provide the information counts toward the numerator.

This factor may be marked "NA" if the practice sees only pediatric patients, and the practice will be considered to have met the factor. The practice must provide a written explanation for an NA response.

<u>Factor 12:</u> The practice has documentation of its patients' health insurance coverage (e.g., health plan name, Medicare, Medicaid, "none").

Documentation

<u>Factors 1–12:</u> The practice provides reports from the electronic system showing the percentage of *all* patients for each populated data field. This is not limited to patients with the three identified important conditions or those in a disease-specific registry. The report contains each required data element to determine how many elements are consistently entered in the practice's electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

- *Denominator* = Number of patients seen by the practice at least once during the reporting period (for factor 11, include only those who meet the age parameters)
- *Numerator* = Number of patients in the denominator for whom the specified

data are entered for each data element.

Element B: Clinical Data — 4 points

The practice uses an electronic system to record the following as structured (searchable) data.	Yes	No	NA
1. An up-to-date problem list with current and active diagnoses for more than 80 percent of patients+	☐	☐	
2. Allergies, including medication allergies and adverse reactions, for more than 80 percent of patients+	☐	☐	
3. Blood pressure, with the date of update for more than 50 percent of patients 2 years and older+	☐	☐	☐
4. Height for more than 50 percent of patients 2 years and older+	☐	☐	☐
5. Weight for more than 50 percent of patients 2 years and older+	☐	☐	☐
6. System calculates and displays BMI (NA for pediatric practices)+	☐	☐	☐
7. System plots and displays growth charts (length/height, weight and head circumference (less than 2 years of age) and BMI percentile (2–20 years) (NA for adult practices)+	☐	☐	☐
8. Status of tobacco use for patients 13 years and older for more than 50 percent of patients (NA for pediatric practices if all patients <13 years)+	☐	☐	☐
9. List of prescription medications with the date of updates for more than 80 percent of patients+	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets all 9 factors	The practice meets 7-8 factors	The practice meets 5-6 factors	The practice meets 3-4 factors	The practice meets 0-2 factors

Explanation

+Core meaningful use requirement

The practice collects clinical information on its patients through an EHR. It uses a system that can be searched for each factor and can create reports. Documentation in the medical record of “none” or “patient declined to provide information” counts toward the numerator. To qualify for Meaningful Use, the practice must meet the related factors using a *certified* EHR.

Factor 1: The patient’s current and active problem list includes acute and chronic diagnoses.

Factor 2: Allergies (including medication, food or environmental allergies) and any associated reactions are recorded as structured data.

Factor 3: All blood pressure readings are documented and dated. Per the Stage 1 meaningful use requirement, this is applicable to patients 2 years and older. Practices *may* choose meet the NCQA requirement with an age definition of **3 years and older** if able to generate a report for this alternative age group.

Factors 4 and 5: Height and weight are documented and dated. This is applicable to patients 2 years and older. NA may be used for practices with no patients greater than 2 years. The practice must provide a written explanation for an NA response.

Factor 6: The practice demonstrates the ability of its electronic system to calculate and display BMI within the medical record. NA may be used for pediatric practices.

The practice must provide a written explanation for an NA response.

Factor 7: The practice demonstrates the capability of its electronic system to plot and display length, weight and head circumference on a growth chart for children younger than 2 years. Head circumference in children under 2 is a vital growth parameter that provides a guide to a child's health, development, nutritional status and response to treatment.

For patients 2–20 years, BMI is calculated using height and weight and plotted on the appropriate CDC BMI-for-age growth chart to obtain a percentile ranking and displayed within the medical record. Percentiles are the most commonly used indicator to assess size and growth patterns. NA may be used for practices with no pediatric patients. The practice must provide a written explanation for an NA response.

Factor 8*:* Data on smoking status and tobacco use are collected as a separate factor to emphasize its importance in relation to overall health. NA may be used if the practice has ***no*** patients 13 years and older. The practice must provide a written explanation for an NA response.

Factor 9: Current prescription medications prescribed by clinicians seen by the patient (including those outside the practice) and updates are recorded as structured data in the medical record. The practice indicates in the record if the patient is not prescribed any medication.

Documentation

Factors 1–5, 8, 9: The practice provides reports from the electronic system showing the percentage of *all* unique patients for each populated data field. This is not limited only to patients with the three identified important conditions or who are in a disease-specific registry. The report contains each required data element to determine how many elements are consistently entered in the practice's electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

- *Denominator* = Number of patients seen by the practice at least once during the reporting period (for factors 3, 4, 5 and 8; only those meeting the age parameters are included)
- *Numerator* = Number of patients in the denominator for whom the specified data are entered for each data element.

Factors 6 and 7: Screen shots demonstrating capability of the electronic system to calculate and display BMI (factor 6) and plot and display growth charts and BMI percentile (factor 7).

Element C: Comprehensive Health Assessment			**4 points**
To understand the health risks and information needs of patients/ families, the practice conducts and documents a comprehensive health assessment that includes:	**Yes**	**No**	**NA**
1. Documentation of age- and gender-appropriate immunizations and screenings	☐	☐	
2. Family/social/cultural characteristics	☐	☐	
3. Communication needs	☐	☐	
4. Medical history of patient and family	☐	☐	
5. Advance care planning (NA for pediatric practices)	☐	☐	☐
6. Behaviors affecting health	☐	☐	
7. Patient and family mental health/substance abuse	☐	☐	
8. Developmental screening using a standardized tool (NA for adult-only practices)	☐	☐	☐
9. Depression screening for adults and adolescents using a standardized tool.	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 8-9 factors	The practice meets 6-7 factors	The practice meets 4-5 factors	The practice meets 2-3 factors	The practice meets 0-1 factors

Explanation

In addition to a physical assessment, a standardized, comprehensive assessment of a patient includes an examination of social and behavioral influences.

Factor 1: Specific age/gender-appropriate screenings and immunizations are not specified by NCQA, but may be those identified by the U.S. Preventive Services Task Force (USPSTF) or the Centers for Medicare & Medicaid Services (CMS) in the Provider Quality Reporting System (PQRS), NCQA's Child Health measures, immunizations recommended by the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention (CDC), preventive care and screenings for children and for women as recommended by the Health Resources and Services Administration (HRSA) or other standardized preventive measures, including those identified in Bright Futures for pediatric patients.

Factor 2: The health assessment includes an evaluation of social and cultural needs, preferences, strengths and limitations. Examples of these characteristics can include family/household structure, support systems, household/environmental risk factors and patient/family concerns.

Factor 3: The practice identifies whether the patient has specific communication requirements (e.g., because of hearing or vision issues).

Factor 4: The practice obtains and documents the relevant medical history of its patients and their families.

Factor 5: **Advance care planning** refers to practice guidance and documentation of patient/family preferences for care at the end of life or for patients who are unable to speak for themselves. This may include discussing and documenting a plan of care with treatment options and preferences. Factor 5 applies primarily to adult populations and may be marked "NA" by practices that see only pediatric patients, and the practice will be considered to have met the factor. The practice must provide a written explanation for an NA response.

Documentation in the field that the patient declined to provide the information counts toward the numerator.

Factor 6: Assessment of risky and unhealthy behaviors should go beyond physical activity and smoking status. Assessment may include nutrition, oral health, dental care, familial behaviors, risky sexual behavior and secondhand smoke exposure. Unhealthy behaviors are often linked to the leading causes of death—heart disease, stroke, cancer, diabetes and injury. (CDC BRFSS)

Factor 7: The practice assesses whether the patient or the patient's family has any mental health conditions or substance abuse issues (e.g., stress, alcohol, prescription drug abuse, illegal drug use, maternal depression).

Factor 8: For newborns through 3 years of age, periodic developmental screening is done using a standardized screening test. If there are no established risk factors or parental concerns, screens are done by 24 months. Factor 8 may be marked "NA" by practices that serve only adult patients, and the practice will be considered to have met the factor. The practice must provide a written explanation for an NA response.

Factor 9: The USPSTF recommends:

- **Adults:** Screening adults for depression when staff-assisted depression care support systems are in place to assure accurate diagnosis, effective treatment and follow-up.
- **Adolescents (12–18 years):** Screening for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal) and follow-up.

Documentation

Factors 1–9: The practice provides a process showing how the information is consistently collected ***or*** a completed patient assessment (de-identified) of the factors documented during the health assessment. NCQA encourages practices to highlight or otherwise indicate the information in the documentation that meets each factor. Do not provide large portions of a medical record.

Element D: Use Data for Population Management 5 points

The practice uses patient information, clinical data and evidence-based guidelines to generate lists of patients *and* to proactively remind patients/ families and clinicians of services needed for:	**Yes**	**No**
1. At least three different preventive care services[++]	☐	☐
2. At least three different chronic care services[++]	☐	☐
3. Patients not recently seen by the practice	☐	☐
4. Specific medications	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice uses information to take action on all 4 factors	The practice uses information to take action on 3 factors	The practice uses information to take action on 2 factors	The practice uses information to take action on 1 factor	The practice uses information to take action on no factors

Explanation

[++]Menu meaningful use requirement

The practice demonstrates that it produces lists of patients needing preventive care and chronic care services, patients not seen recently and patients on specific medications. The practice uses the lists or report(s) (a *report may include multiple services needed*) to manage specific patient populations.

The practice shows how it uses reports to remind patients of needed services. For example, in addition to a report showing the number of patients eligible for mammograms, the practice must provide evidence or a brief statement describing how it reminds patients to get mammograms. The practice may use mail, telephone or e-mail to remind patients when services are due.

Factors 1 and 2 blend two meaningful use criteria in each factor.

- *Generate lists of patients:* Generate at least one report listing patients with a specific condition to use for quality improvement, reduction of disparities and outreach.
- *Send reminders:* More than 20 percent of all patients 65 years or older or 5 years or younger are sent an appropriate reminder for preventive or follow-up care.

Factor 1: The practice generates lists of patients and uses the lists to remind patients of at least three preventive care services needed appropriate to the patients' age or gender (e.g., well-child visits, pediatric screenings, immunizations, mammograms, fasting blood sugar, stress test).

Factor 2: The practice generates lists of patients who need chronic care management services and uses the lists to remind patients of at least three chronic care services needed. Examples include diabetes care, coronary artery disease care, lab values outside normal range and post-hospitalization follow-up appointments. Examples for children include services related to chronic conditions such as asthma, ADHD, ADD, obesity and depression.

Factor 3: The practice generates lists of patients who may have been overlooked and who have not been seen recently. The practice may use its own criteria, such as a care management follow-up visit or an overdue periodic physical exam.

Factor 4: The practice generates lists of patients on specific medications; the lists may be used to manage patients who were prescribed medications with potentially harmful side effects, to identify patients who have been prescribed a brand name drug instead of a generic drug or to notify patients about a recall.

Documentation

The practice demonstrates that during the past year it proactively identified and provided outreach to patients in need of services (as described in each factor). Data provided from one or more health plans that account for at least 75 percent of the practice's patient population are acceptable.

Factors 1–4: For each factor, the practice provides:

- *Reports or lists* of patients needing services generated within the past 12 months. For factors 1 and 2, documentation must identify at least three different services.

and

- *Materials* showing how patients are notified of needed services (e.g., letters sent to patients, a script or description of phone reminders, screen shots of electronic notices).

MHSS 3: Plan and Manage Care 17 points

The practice systematically identifies individual patients and plans, manages and coordinates their care, based on their condition and needs and on evidence-based guidelines.

Element A: Implement Evidence-Based Guidelines 4 points

The practice implements evidence-based guidelines through point-of-care reminders for patients with:	Yes	No
1. The first important condition^{+}	☐	☐
2. The second important condition	☐	☐
3. The third condition, related to unhealthy behaviors or mental health or substance abuse.	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 3 factors	No scoring option	The practice meets 2 factors, including factor 3	The practice meets 1 factor	The practice meets no factors

Explanation

+Core meaningful use requirement

The practice maintains continuous relationships with patients through care management processes based on evidence-based guidelines. A key to successful implementation of guidelines is to embed them in the practice's day-to-day operations (frequently referred to as clinical decision support) and by using registries that proactively identify and engage patients who are lacking important services (as in MHSS 2, Element D).

The practice analyzes its entire population to determine the required important conditions, which may be chronic or recurring conditions such as COPD, hypertension, hyperlipidemia, HIV/AIDS, asthma, diabetes or congestive heart failure.

Factor 3 has been identified as a **critical factor** and must be met for practices to receive a 50% or 100% score, at least one identified condition must be related to unhealthy behaviors (e.g., obesity, smoking), substance abuse (e.g., illegal drug use, prescription drug addiction, alcoholism) or a mental health issue (e.g., depression, anxiety, bipolar disorder, ADHD, ADD, dementia, Alzheimer's).

When selecting conditions, practices should consider the following:

- Diagnoses and risk factors prevalent in patients seen by the practice (data from MHSS 2, Elements B and C)
- The importance of care management and self-management support in reducing complications
- The availability of evidence-based clinical guidelines
- Patients with the conditions selected in factors 1–3 will be used for the medical record review required in MHSS 3, Elements C and D, and in MHSS 4, Element A.

Pediatric populations

Relevant conditions may include, but are not limited to, asthma, obesity, eczema, allergic rhinitis, pharyngitis, bronchiolitis, sinusitis, otitis media and urinary tract infection. Well-child care is also an acceptable condition in pediatrics because there are established, comprehensive guidelines for children that include a variety of care needs, such as regular developmental assessments, anticipatory guidance and preventive care services. Well-child care should be specified by age group and may only be used as one important condition.

Documentation

The practice provides the following:

- Lists the three important conditions
- Provides the name and source of evidence-based guidelines for each condition
- Demonstrates how the guidelines for each condition are implemented in patient care, using chart tools, screen shots or workflow organizers.
- Examples of guideline implementation, organizers, flow sheets or templates based on condition-specific guidelines enabling the practice to develop treatment plans and document patient status and progress. These tools are used by the practice to manage patient care. Templates of the tools may be provided for documentation.
- Electronic system organizer (e.g., registry, EHR, other system) screenshots showing templates for treatment plans and documenting progress. .

Element B: Identify High-Risk Patients	**3 points**

To identify high-risk or complex patients, the practice:	**Yes**	**No**
1. Establishes criteria and a systematic process to identify high-risk or complex patients	☐	☐
2. Determines the percentage of high-risk or complex patients in its population.	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets both factors	No scoring option	No scoring option	The practice meets 1 factor	The practice does not meet either factor

In the box to the right, enter the percentage of high-risk patients. ☐

Explanation

Factor 1: The practice has specific criteria and has a process based on these criteria to identify patients with complex or high-risk medical conditions for whole-person care planning and management.

The criteria for identifying complex or high-risk patients should come from a profile of resource use and risk in the practice's population and may include the following, or a combination of the following.

- High level of resource use (e.g., visits, medication, treatment or other measures of cost)
- Frequent visits for urgent or emergent care (e.g., two or more visits in the last six months)
- Frequent hospitalizations (i.e., two or more in last year)
- Multiple co-morbidities, including mental health
- Noncompliance with prescribed treatment/medications
- Terminal illness
- Psychosocial status, lack of social or financial support that impedes ability for care
- Advanced age, with frailty
- Multiple risk factors

Pediatric populations

- Practices may identify children and youth with special health care needs who are defined by the U.S. Department of Health and Human Services Maternal and Child Health Bureau (MCHB) as children "who have or are at risk for chronic physical, developmental, behavioral or emotional conditions and who require health and related services of a type or amount beyond that required generally." (Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, American Academy of Pediatrics, 3rd Edition, 2008, p. 18.)
- Additional care management guidelines for children and youth with special needs are included in the following publication: Caring for Children Who Have Special Health-care Needs: A Practical Guide for the Primary Care Practitioner. Matthew

D. Sadof and Beverly L. Nazarian, *Pediatr. Rev.* 2007;28;e36-e42
http://pedsinreview.aappublications.org/cgi/content/full/28/7/e36

The practice may identify patients through a billing or practice management system or electronic medical record; through key staff members; or through profiling performed by a health plan, if profiles provided by the plan(s) represent at least 75 percent of the patient population.

Note: *A sample of the patients identified as high risk or complex will be included in the medical record review required for Elements C and D, and for MHSS 4, Element A.*

Factor 2: While this factor asks the practice to calculate a percent, the purpose is not to evaluate the actual percent which may be small, but rather for the practice to identify its high risk patients in comparison to the rest of its population of patients.

Documentation

Factor 1: The practice provides a process and criteria used to identify patients.

Factor 2: The practice provides a report that shows the number and percentage of its total patient population identified as high risk or complex. This factor calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage.

- *Denominator* = Total number of patients in the practice
- *Numerator =* Patients identified in the denominator as high risk or complex

Element C: Care Management			**4 points**
The care team performs the following for at least 75 percent of the patients identified in Elements A and B.	**Yes**	**No**	**Enter Percent**
1. Conducts pre-visit preparations	☐	☐	
2. Collaborates with the patient/family to develop an individual care plan, including treatment goals that are reviewed and updated at each relevant visit	☐	☐	
3. Gives the patient/family a written plan of care	☐	☐	
4. Assesses and addresses barriers when the patient has not met treatment goals	☐	☐	
5. Gives the patient/family a clinical summary at each relevant visit	☐	☐	
6. Identifies patients/families who might benefit from additional care management support	☐	☐	
7. Follows up with patients/families who have not kept important appointments	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 6-7 factors	The practice meets 5 factors	The practice meets 3-4 factors	The practice meets 1-2 factors	The practice meets no factors

Explanation

Assessment of this element is based on a sample of patients identified in Elements A and B. The sample is drawn from patients seen in the last three months. This sample is also used for the medical record review required in MHSS 3, Elements C and D, and in MHSS 4, Element A.

While patients may be identified for care management by diagnosis or condition, the emphasis of the care must be on the whole person over time and on managing all of the patient’s care needs. The practice adopts evidence-based guidelines and uses them to plan and manage patient care.

Factor 1: The practice asks patients (e.g., by letter or e-mail) to complete required paperwork before a scheduled visit, in addition to lab tests, imaging tests or referral visits. The practice reviews test results before the visit. This process can be part of the team daily huddle or a protocol, procedure or checklist.

Factor 2: Individualized care plans developed in collaboration with the patient/family address the patient’s care needs, the responsibilities of the medical home and of specialists to whom the patient is referred and the role of community services and support, if appropriate. Care plans must include treatment goals and may be based on a template.

At each relevant visit, the clinician uses indicators from evidence-based practice guidelines, such as lab test results (e.g., HbA1c), patient symptoms (e.g., depression symptoms), blood pressure or asthma functional score, to determine patient progress with the care plan and treatment goals, or documents deviation from established guidelines and includes the rationale. If there are no changes in the care plan at relevant visits, the practice must document this in the medical record.

Relevant visits are determined by the practice and the clinician, but should be with regard to:

- Important or chronic conditions, including well-child visits for practices with pediatric patients
- Visits that result in a change in treatment plan or goals
- Additional instructions or information for the patient/family
- Visits associated with transitions of care.

Pediatric practices that use well-child visits as an important condition may use child development markers specified by the American Academy of Pediatrics to assess progress.

Factor 3: The practice gives the patient and/or family a care plan tailored for the patient's use at home and to the patient's understanding.

Factor 4: The clinician or care team assesses or talks with the patient/family to determine reasons for limited progress toward treatment goals, and to help the patient/family address barriers (e.g., patient's lack of understanding or motivation, financial need, insurance issues, adverse effects of medication or other treatment or transportation problems). The clinician or care team changes the treatment plan or adds treatment, if appropriate. A completed social history is acceptable as documentation that the clinician or care team has assessed the patient's progress and thus is meeting treatment goals. The practice may respond NA for this patient.

Factor 5: The practice provides a written clinical summary at relevant office visits. Relevant visits are determined by the practice and the clinician but be with regard to:

- Important or chronic conditions, including well-child care visits for practices with pediatric patients
- Visits that result in a change in treatment plan or goals
- Additional instructions or information for the patient or family.

Factor 6: The practice assesses and, when appropriate, refers patients to other resources (external or internal) for additional care management support, such as disease management (DM) programs or case management programs.

Factor 7: The practice follows up with patients who have not kept important appointments, such as for rechecks, preventive care or post-hospitalization. Systematic tracking of important appointments that patients have kept meets the intent of this factor. If the patient record shows that the patient has kept important appointments the practice may respond NA for this patient.

Documentation

The practice provides reports from an electronic system or uses the Record Review Workbook, showing each required data element, to determine the number of data elements consistently entered in the practice's medical records.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use one of the following methods to calculate the percentage:

Method 1

Query the practice's electronic registry, practice management system or other electronic systems for the important conditions identified in Elements 3A and 3B. The practice may use this method if it can determine a denominator as described below.

- *Denominator =* Total number of patients with important conditions and patients identified as high-risk or complex who had at least one visit related to the important condition in a recent three month period

- *Numerator =* Number of patients identified in the denominator for whom each item is entered in the medical record

Method 2

Review a sample of medical records using the sampling method in NCQA's Record Review Workbook. The practice must use the instructions in the Record Review Workbook to choose a sample of relevant patients and check for the relevant items. Note: to allow for record review for multiple elements using the same sample, the method calls for choosing patients with the practice's important conditions and those identified as high risk or complex.

- *Denominator* = The sample of patient medical records using NCQA's sampling method in the Record Review Workbook Instructions
- *Numerator* = The patients from the medical record review for whom items are entered

Note: *A patient may fall into more than one category (across the three conditions and the definition of "high risk" or "complex"), but each patient is counted only once. Factors must be successfully addressed for all conditions for the practice to respond "Yes" for each patient.*

Element D: Medication Management 3 points

The practice manages medications in the following ways.	Yes	No	Enter Percent
1. Reviews and reconciles medications with patients/families for more than 50 percent of care transitions[++]	☐	☐	
2. Reviews and reconciles medications with patients/families for more than 80 percent of care transitions	☐	☐	
3. Provides information about new prescriptions to more than 80 percent of patients/families	☐	☐	
4. Assesses patient/family understanding of medications for more than 50 percent of patients with date of assessment	☐	☐	
5. Assesses patient response to medications and barriers to adherence for more than 50 percent of patients with date of assessment	☐	☐	
6. Documents over-the-counter medications, herbal therapies and supplements for more than 50 percent of patients/families, with the date of updates	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 5-6 factors, including factor 1	The practice meets 3-4 factors, including factor 1	The practice meets 2 factors, including factor 1	The practice meets factor 1	The practice meets no factors or does not meet factor 1

Explanation

[++] **Menu meaningful use requirement**

Assessment of this element is based on a sample of the patients identified in Elements A and B. The same patients are used for the medical record review required in MHSS 3, Elements C and D, and in MHSS 4, Element A.

Factors 1 and 2: It is important for the practice to review and document in the medical record all prescribed medications a patient is taking. The practice reviews and reconciles medications following visits to specialists, as well as ER visits and hospitalizations. Medication review and reconciliation should occur at transitions of care and at relevant visits, at least annually. The practice may define “relevant visit.”

Maintaining a current list of a patient’s medications and resolving any conflicts with medications reduces the possibility of duplicate medications, medication errors or adverse drug events. Having a process for medication reconciliation is essential for patient safety. Thus, Factor 1 has been identified as a **critical factor** and is required for practices to receive any score on the element.

Factor 3: The practice provides patients/families with information about new medications, including potential side effects, drug interactions, instructions for taking the medication and the consequences of not taking it.

Factor 4: The practice assesses the patient’s understanding of the information about the medication.

Factor 5: The practice asks the patient about problems or difficulty taking the medication and side effects; whether the patient is taking the medication as prescribed and if the patient is not taking the medication, possible reasons.

Factor 6: It is important that at least annually, the practice reviews and documents in the medical record that the patient is taking over-the-counter (OTC) medications, herbal therapies and supplements, to prevent interference with prescribed medication and to evaluate potential side effects.

Documentation

The practice provides reports from an electronic system or uses the Record Review Workbook, showing each required data element, to determine the number of data elements consistently entered in the practice's electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use one of the following methods to calculate the percentage.

Method 1

Query the practice's electronic registry, practice management system or other electronic systems for the important conditions identified in Elements 3A and 3B. The practice may use this method if it can determine a denominator as described below.

- *Denominator* = Total number of patients with important conditions and patients identified as high-risk or complex who had at least one visit related to the important condition in a recent three month period
- *Numerator* = Number of patients identified in the denominator for whom each item is entered in the medical record

Method 2

Review a sample of medical records using the sampling method in NCQA's Record Review Workbook. The practice must use the instructions in the Record Review Workbook to choose a sample of relevant patients and check for the relevant items. Note that to allow for record review for multiple elements using the same sample, the method calls for choosing patients with the practice's most important conditions and those identified as high risk or complex.

- *Denominator* = The sample of patient medical records using NCQA's sampling method in the Record Review Workbook Instructions
- *Numerator* = The patients from the medical record review for whom *items* are entered

Not Applicable is an option in the Record Review Workbook drop-down menu for each factor in this element and may be used for patients who have not been prescribed any medications.

Note: *A patient may fall into more than one category (across the three conditions and the definition of "high risk" or "complex"), but each patient is counted only once. Factors must be successfully addressed for all conditions for the practice to respond "Yes."*

Element E: Use Electronic Prescribing			**3 points**
The practice uses an electronic prescription system with the following capabilities.	**Yes**	**No**	**NA**
1. Generates and transmits at least 40 percent of eligible prescriptions to pharmacies[+]	☐	☐	
2. Generates at least 75 percent of eligible prescriptions	☐	☐	
3. Enters electronic medication orders into the medical record for more than 30 percent of patients with at least one medication in their medication list[+]	☐	☐	☐
4. Performs patient-specific checks for drug-drug and drug-allergy interactions[+]	☐	☐	
5. Alerts prescribers to generic alternatives	☐	☐	
6. Alerts prescribers to formulary status[++]	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 5-6 factors, including factor 2	The practice meets 4 factors, including factor 2	The practice meets 2-3 factors, including factor 2	The practice meets 1 factor **or** meets 2-5 factors but not factor 2	The practice meets no factors

Explanation

[+]Core meaningful use requirements

[++]Menu meaningful use requirement

Factor 1: The electronic prescribing system generates and transmits at least 40 percent of eligible prescriptions directly to the pharmacy. Eligible prescriptions exclude prescriptions that are not allowed by law to be electronically conveyed to pharmacies (e.g., controlled substances).

Factor 2: At least 75 percent of eligible prescriptions are generated electronically, including new prescriptions and renewals which requires the practice to produce a denominator that encompasses the total number of prescriptions issued (by hand, by phone and electronically). If the practice is not able to produce such a report, it may, instead, provide 1) the practice's prescribing process/policy including how the practice avoids the use of hand-written prescriptions and 2) information on the number of electronic prescriptions issued **and** total number of patients and 3) an explanation of how it represents at least "75 percent" of the total prescription volume.

Factors 1 and 2 distinguish between generating prescriptions electronically and generating them *and* transmitting them electronically. Practices may be able to create and produce prescriptions electronically without being able to transmit them to pharmacies.

Since the remainder of the factors are only of value if the system is being actively used to write prescriptions, factor 2 has been designated as a **critical factor** required to receive more than 25 percent of the available points for this element.

Factor 3: The practice's electronic prescribing system is integral to patient records, allowing it to view patient diagnoses, patient medications, enter new medications or make changes and identify documented allergies. The practice uses the electronic prescribing system to enter medications prescribed to its patients. If a practice writes fewer than 100 prescriptions during the reporting period the response in the survey tool may be NA. The practice must provide a written explanation for an NA response. The practice must enter the number of prescriptions written during the reporting period in the survey tool or a linked document to attest to exclusion from this requirement.

Factor 4: When a new prescription request is entered, the practice's electronic prescribing system alerts the clinician to potentially harmful interactions between drugs or to patient allergy to a drug. **Patient-specific information** is related or linked to a specific patient.

Factor 5: The system alerts the clinician to cost-effective, generic options.

Factor 6: The system connects with or downloads the formulary for the patient's health plan to identify covered drugs and the copayment tier, if applicable.

Documentation

Factor 1: The practice provides reports from the electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

- *Denominator* = Eligible prescriptions written by the practice
- *Numerator* = Eligible prescriptions generated **and** transmitted with the practice's electronic prescribing system

Factor 2: The practice provides reports from the electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

- *Denominator* = Eligible prescriptions written by the practice
- *Numerator* = Eligible prescriptions generated by the practice using the practice's electronic prescribing system

Factor 2 alternate documentation

The practice provides:

- Prescribing process/policy including how the practice ensures the avoidance of writing hand-written prescriptions

and

- Report showing the total number of patients seen in the past 12 months (or a recent 3-month period if the practice does not have 12 months of electronic data) and the number of eligible prescriptions generate by the practice using the electronic prescribing system during the same time period

and

- Explanation of how this calculation meets the 75% requirement

Factor 3: The practice provides reports from the electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

- *Denominator* = Patients in the practice's system with at least one medication in their medication list
- *Numerator* = Number of patients in the denominator with at least one medication entered directly into the medical record using the practice's integrated electronic prescribing system

<u>Factors 4–6:</u> The practice provides reports from the electronic system or screen shots demonstrating the system's capabilities.

MHSS 4: Provide Self-Care Support and Community Resources

9 points

The practice acts to improve patients' ability to manage their health by providing a self-care plan, tools, educational resources and ongoing support.

Element A: Support Self-Care Process			**6 points**
The practice conducts activities to support patients/families in self-management:	**Yes**	**No**	**Enter Percent**
1. Provides educational resources or refers at least 50 percent of patients/families to educational resources to assist in self-management	☐	☐	
2. Uses an EHR to identify patient-specific education resources and provide them to more than 10 percent of patients, if appropriate++	☐	☐	
3. Develops and documents self-management plans and goals in collaboration with at least 50 percent of patients/families	☐	☐	
4. Documents self-management abilities for at least 50 percent of patients/families	☐	☐	
5. Provides self-management tools to record self-care results for at least 50 percent of patients/families	☐	☐	
6. Counsels at least 50 percent of patients/families to adopt healthy behaviors	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 5-6 factors, including factor 3	The practice meets 4 factors, including factor 3	The practice meets 3 factors, including factor 3	The practice meets 1-2 factors **or** meets 3-5 factors but not factor 3	The practice meets no factors

Explanation

++Menu meaningful use requirement

This element reviews patients with important conditions identified for the medical record review.

The practice provides patients with self-management support and tools beyond the counseling or guidance typically provided during an office visit, and provides or refers patients to self-management programs or classes. Programs may be offered through community agencies, a health plan or a patient's employer.

Factor 1: Educational programs and resources may include information about a medical condition or about the patient's role in managing the condition. Resources include brochures, handout materials, videos, Web site links and pamphlets, as well as community resources (e.g., programs, support groups). Based on the practice's assessment of languages spoken by its patients (MHSS 2, Element A), materials in languages other than English should be available for patients/families, if appropriate.

Patients/families may be referred to resources outside the practice, with consideration that resources may not be covered by health insurance. Self-management programs may include asthma education, diabetes education and other classes or groups as well as referrals to community resources for the uninsured and underinsured or for transportation assistance to medical appointments for patients.

Factor 2: The practice uses certified EHR to identify patient-specific educational resources and provides these resources to at least 10 percent of its patients, if appropriate.

CMS states, "Resources are identified through logic built into certified EHR technology which evaluates information about the patient and suggests education resources that would be of value to the patient." Patients may be identified as candidates for patient-specific educational resources through the patient's problem list, medication list, or laboratory test results. The practice uses certified EHR technology to suggest patient-specific educational resources but the clinician makes the final decision on the usefulness and relevance to a specific patient."

Factor 3: The practice works with patients to develop a self-care plan that addresses a patient's condition and includes goals *and* a way to monitor self-care. NCQA expects the practice to have documentation that it provides written self-care plans to patients, families or caregivers. One example for pediatric practices is an asthma action plan. Self-management for pediatric practices may involve anticipatory guidance focusing on parent management of breastfeeding, eating, sleeping or activity patterns. Research supports the importance of practices developing a self-care plan in collaboration with patients that may be used by patients and families to manage care at home. Thus, Factor 3 has been identified as a **critical factor** and is required for practices to receive more than 25 percent of the available points in this element.

If the patient is meeting treatment goals, documentation could be that the patient is meeting treatment goals with documentation that the patient was instructed to maintain the current self-care plan.

Factor 4: Patients and families who feel they can manage their condition, learn needed self-care skills or adhere to treatment goals will have greater success. Practices may use motivational interviewing to assess patient readiness to change and self-management abilities, including questionnaires and self-assessment forms. The purpose of assessing self-management abilities is that the practice can adjust self-management plans to fit patient/family capabilities and resources.

Factor 5: Self-management tools enable patients to collect health information at home that can be discussed with the clinician. For example, a practice gives its hypertensive patients a form or another systematic method of documenting daily blood pressure readings, along with information about blood pressure measurement and instructions for taking a reading. Patients can track their progress and potentially adjust the treatment or their behavior. For pediatric practices, patients with asthma may be asked to monitor peak flows and the self-management plan offers instructions for how to adjust medications accordingly.

Factor 6: The practice provides evidence-based counseling (e.g., coaching, motivational interviewing) to patients for adopting healthy behaviors associated with disease risk factors (e.g., tobacco use, nutrition, exercise and activity level, alcohol use).

Documentation

For all factors, the practice provides a report from an electronic system or uses the Record Review Workbook.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use one of the following methods to calculate the percentage.

Method 1

Query the practice's electronic registry, practice management system or other electronic systems for the important conditions identified in Elements 3A and 3B. The practice may use this method if it can determine a denominator as described below.

Denominator = Total number of patients with important conditions and patients identified as high-risk or complex who had at least one visit related to the important condition in a recent three month period

- *Numerator =* Number of patients identified in the denominator for whom each item is entered in the medical record

Method 2

Review a sample of medical records using the sampling method in NCQA's Record Review Workbook. The practice must use the instructions in the Record Review Workbook to choose a sample of relevant patients and check for the relevant items. Note that to allow for record review for multiple elements using the same sample, the method calls for choosing patients with the practice's most important conditions and those identified as high risk or complex.

- *Denominator =* The sample of patient medical records using NCQA's sampling method in the Record Review Workbook Instructions
- *Numerator* = The patients from the medical record review for whom each activity is documented

Note: *A patient may fall into more than one category (across the three conditions and the definition of "high risk" or "complex"), but each patient is counted only once.*

Element B: Provide Referrals to Community Resources		3 points
The practice supports patients/families that need access to community resources:	**Yes**	**No**
1. Maintains a current resource list on five topics or key community service areas of importance to the patient population	☐	☐
2. Tracks referrals provided to patients/families	☐	☐
3. Arranges or provides treatment for mental health and substance abuse disorders	☐	☐
4. Offers opportunities for health education programs (such as group classes and peer support.)	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 3 factors	The practice meets 2 factors	The practice meets 1 factor	Practice does not provide services

Explanation

Factor 1: The key resource list is specific to the needs of *the practice's population*—**not specific to patients with important conditions**—and includes programs and services to help patients in self-care or give the patient population access to care related to at least five topics or key community service areas of importance, which may include:

- Smoking cessation
- Weight management (under- and overweight)
- Exercise/physical activity
- Nutrition
- Parenting
- Dental
- Other, such as:
  - Transportation to medical appointments
  - Noncommercial health insurance options
  - Obtaining prescription medications
  - Falls prevention
  - Meal support
  - Hospice
  - Respite care
  - Child development
  - Immunization information
  - Child care,

- Breastfeeding

Although the practice may provide one or more services, it must also identify services or agencies available in the community. The intent of the element is for the practice to connect patients with available community resources.

Factor 2: The practice tracks frequency and types of referrals to agencies to evaluate whether it has identified sufficient and appropriate resources for its population over time.

Factor 3: The practice provides treatment or identifies a treatment provider and helps patients get care for mental health and substance abuse problems, if needed.

Factor 4: The practice provides or makes available health education classes that may include alternative approaches such as peer-led discussion groups or shared medical appointments. In a **shared medical appointment** or **group visit,** multiple patients meet in a group setting for follow-up or routine care. These types of appointments may offer access to a multidisciplinary care team and allow patients to interact with and learn from each other.

Documentation

Factor 1: The practice has a list of community services or agencies with specified categories (e.g., smoking cessation programs).

Factor 2: The practice has a log or report showing referral tracking over a minimum period of one month.

Factors 3 and 4: The practice has a documented process **and** a sample of available resources.

MHSS 5: Track and Coordinate Care 18 points

The practice systematically tracks tests and coordinates care across specialty care, facility-based care and community organizations.

Element A: Test Tracking and Follow-Up 6 points

The practice has a documented process for and demonstrates that it:	Yes	No	NA
1. Tracks lab tests until results are available, flagging and following up on overdue results	☐	☐	
2. Tracks imaging tests until results are available, flagging and following up on overdue results	☐	☐	
3. Flags abnormal lab results, bringing them to the attention of the clinician	☐	☐	
4. Flags abnormal imaging results, bringing them to the attention of the clinician	☐	☐	
5. Notifies patients/families of normal and abnormal lab and imaging test results	☐	☐	
6. Follows up with inpatient facilities on newborn hearing and blood-spot screening (NA for adults)	☐	☐	☐
7. Electronically communicates with labs to order tests and retrieve results	☐	☐	
8. Electronically communicates with facilities to order and retrieve imaging results	☐	☐	
9. Electronically incorporates at least 40 percent of all clinical lab test results into structured fields in medical records++	☐	☐	☐
10. Electronically incorporates imaging test results into medical records.	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets 8-10 factors, including factors 1 and 2	The practice meets 6-7 factors, including factors 1 and 2	The practice meets 4-5 factors, including factors 1 and 2	The practice meets 3 factors, including factors 1 and 2	The practice meets fewer than 3 factors **or** does not meet factors 1 and 2

Explanation

++Menu meaningful use requirement

Systematic monitoring is important to ensure that needed tests are performed and that results are acted on when they indicate a need for action. The practice routinely uses a manual or electronic system to order, track and follow up on test results. The report must reflect a minimum of 1 week of tests ordered by the practice

Factors 1 and 2: The practice tracks the majority of lab and imaging tests from the time they are ordered until results are available, and flags test results that have not been made available. **Flagging** is a systematic method of drawing attention to results that have not been received by the practice. The flag may be an icon that automatically appears in the electronic system or a manual tracking system with a timely surveillance process. The practice follows up with the lab or diagnostic center and, if necessary, the patient, to determine why results are overdue. The expected time that results are made available to the practice varies by test and is at the discretion of the practice.

Ineffective management of laboratory and imaging test results can result in less than optimal care and may compromise patient safety. Thus, Factors 1 and 2 have been identified as **critical factors** and are required for practices to receive any credit for this element.

Factors 3 and 4: Abnormal results of lab or imaging tests are flagged or highlighted and brought to the attention of the clinician to ensure timely follow-up with the patient/family.

Factor 5: The practice gives normal and abnormal results to patients in a timely manner (defined by the practice). There must be evidence that the practice proactively notifies patients of normal and abnormal results. Filing the report in the medical record for a patient's next office visit does not meet the intent of the factor.

Factor 6: The practice follows up with the hospital or state health department if screening results are not received. Most states mandate that birthing facilities perform a newborn blood-spot screening for a number of conditions (based on recommendations by the American Academy of Pediatrics and the American College of Medical Genetics) and a hearing screening on all newborns. The practice may respond NA in adult-only practices. The practice must provide a written explanation for an NA response.

Factors 7 and 8: Lab and imaging tests are ordered and retrieved electronically from testing facilities.

Factor 9: Lab test results are electronically integrated into the electronic system in the patient's medical record rather than requiring a look-up in a separate system and manual data entry into the electronic medical record.

CMS provides the following additional information: "If the practice orders no lab tests whose results are in a positive or negative or numeric format during the reporting period an NA response may be entered." The practice must provide a written explanation for an NA response.

Factor 10: Imaging results which include a written report and may include the images are electronically integrated into the medial record rather than requiring a look-up in a separate system and manual data entry into the electronic medical record. A scanned PDF of imaging results in the medical record, which allows the practice to retrieve and review the image, is acceptable.

Documentation

Factors 1–8, 10: The practice has a written process or procedure for staff *and* an example of how the process is met for each factor.

Factor 9: The practice provides reports from the electronic system.

This element calls for calculation of a percentage that requires a numerator and a denominator. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

- *Denominator* = Number of lab tests ordered during the reporting period with results expressed in a positive or negative affirmation or as a number
- *Numerator* = Number of lab tests whose results are expressed in a positive or negative affirmation or as a number which are incorporated as structured data.

Element B: Referral Tracking and Follow-Up 6 points

The practice coordinates referrals by:	Yes	No	NA
1. Giving the consultant or specialist the clinical reason for the referral and pertinent clinical information	☐	☐	
2. Tracking the status of referrals, including required timing for receiving a specialist's report	☐	☐	
3. Following up to obtain a specialist's report	☐	☐	
4. Establishing and documenting agreements with specialists in the medical record if co-management is needed	☐	☐	
5. Asking patients/families about self-referrals and requesting reports from clinicians	☐	☐	
6. Demonstrating the capability for electronic exchange of key clinical information (e.g., problem list, medication list, allergies, diagnostic test results) between clinicians+	☐	☐	
7. Providing an electronic summary of the care record to another provider for more than 50 percent of referrals.++	☐	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets 5-7 factors	The practice meets 4 factors	The practice meets 3 factors	The practice meets 1-2 factors	The practice meets no factors

Explanation

+Core meaningful use requirement

++Menu meaningful use requirement

The practice tracks referrals using a reporting log or electronic reporting system. The tracked referrals are those determined by the clinician to be important for a patient's treatment, or as indicated by practice guidelines; for example, a referral to a breast surgeon for examination of a potentially malignant tumor, a referral to a mental health specialist for a patient with depression, a referral to a pediatric cardiologist for an infant with a ventricular septal defect. This factor includes referrals to medical specialists, mental health and substance abuse specialists and other services.

Factor 1: Information included in the referral communication to the specialist includes:

- Reason for and urgency of the referral
- Relevant clinical information (e.g., patient's family and social history, clinical findings and current treatment)
- General purpose of the referral (e.g., consultative, transfer of care, co-management) and necessary follow-up communication or information.

Factor 2: The referral tracking system includes the date when the referral was initiated and the timing indicated for receiving the report.

Screen shots of a patient record do not meet the requirement. Documentation requires a paper or electronic tracking sheet or system showing referral tracking and follow-up of multiple patients (blinded).

Factor 3: If the practice does not receive a report from the specialist, it contacts the specialist's office about the report's status and the expected date for receiving the report, and documents the effort to retrieve the report in a log or electronic system.

Factor 4: For patients who are regularly treated by a specific specialist, the primary care clinician and the specialist enter into an agreement that enables co-management of the patient's care and includes timely sharing of changes in patient status and treatment plan. For co-managed patients, the primary clinician gives information to the specialist and receives information from the specialist within a period agreed to by both parties. This information is documented in the medical record.

Factor 5: Patients might see specialists without a referral from the medical home and without the medical home or clinician's knowledge. Clinicians should routinely ask patients if they have seen a specialist or are receiving care from a specialist and, if so, request a report from the specialist. The information should be documented in the medical record.

Factor 6: The practice is asked to show that its EHR technology has the capacity to electronically exchange key clinical information with facilities. That is, the practice needs to show its **capability** to send and receive key clinical information electronically (e.g., problem lists, medication lists, medication allergies, diagnostic test results) with other providers of care, with patient-authorized entities (such as health plans, an entity facilitating health information exchange among providers or a personal health record vendor identified by the patient. The key clinical information is based on the judgment of the clinician. There is no requirement for the practice to be able to exchange data on a regular basis now. To qualify for Meaningful Use, the practice must meet the related factors using a certified EHR.

Factor 7: The practice provides an electronic summary-of-care record for more than 50 percent of referrals to the referred specialist(s). If the practice does not refer patients to other providers, they may respond NA to this factor. The practice must provide a written explanation of the NA response.

CMS provides the following additional information: "The referring party must provide the summary of care record to the receiving party. The clinician can send an electronic or paper copy of the summary of care record directly to the next provider or can provide it to the patient to deliver to the next provider, if the patient can reasonably be expected to do so. If the provider to whom the referral is made has access to the medical record maintained by the referring provider, the summary of care record would not need to be provided and that patient should not be included in the denominator for transitions of care."

Documentation

The practice provides:

Factors 1–3: Reports or logs demonstrating data collected in the tracking system used by the practice. A paper log or a report from the electronic system meets the requirement; screen shots of a patient record do not meet the requirement. The report may be system generated or may be based on at least one week of referrals, with de-identified patient data.

Factors 4–5: The practice has a documented process, evidenced by at least three examples.

Factor 6: Screenshot or other documentation showing a test of the capability of the EHR to exchange key clinical information To qualify for Meaningful Use, the practice must meet the related factors using a certified EHR

Factor 7: This element calls for calculation of a percentage that requires a numerator and a denominator. The practice provides reports from the electronic system. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

The practice may use the following methodology to calculate the percentage.

- *Denominator =* Number of referrals during the EHR reporting period
- *Numerator* = Number of referrals in the denominator where a summary of care record was provided.

Element C: Coordinate With Facilities and Manage Care Transitions			**6 points**
On its own or in conjunction with an external organization, the practice systematically:	**Yes**	**No**	**NA**
1. Demonstrates its process for identifying patients with a hospital admission and patients with an emergency department visit	☐	☐	
2. Demonstrates its process for sharing clinical information with admitting hospitals and emergency departments	☐	☐	
3 Demonstrates its process for consistently obtaining patient discharge summaries from the hospital and other facilities	☐	☐	
4. Demonstrates its process for contacting patients/families for appropriate follow-up care within an appropriate period following a hospital admission or emergency department visit	☐	☐	
5. Demonstrates its process for exchanging patient information with the hospital during a patient's hospitalization	☐	☐	
6. Collaborates with the patient/family to develop a written care plan for patients transitioning from pediatric care to adult care (NA for adult-only or family medicine practices)	☐	☐	☐
7. Demonstrates the capability for electronic exchange of key clinical information with facilities	☐	☐	
8. Provides an electronic summary-of-care record to another care facility for more than 50 percent of transitions of care++	☐	☐	☐

Scoring

100%	75%	50%	25%	0%
Activities include 5-8 factors	Activities include 4 factors	Activities include 2-3 factors	Activities include 1 factor	Activities include no factors

Explanation

++Menu meaningful use requirement

Effective transitions of care—between primary care and specialist providers, between facilities, between physicians and institutional settings—ensure that patient needs and preferences for health services and sharing information across people, functions and sites are met over time. Enhancing care transitions across providers can improve coordination of care and its affect on quality and efficiency (Greiner/ABIM Fdn 2007).

<u>Factor 1:</u> The practice works with local hospitals, ERs and health plans to identify patients who were hospitalized and patients who had ER visits.

<u>Factor 2:</u> The practice provides facilities with appropriate and timely information about the patient.

<u>Factor 3:</u> The practice or external organization has a process for obtaining patient discharge summaries from hospitals, ERs, skilled nursing facilities, surgical centers and other facilities.

<u>Factor 4:</u> The practice contacts patients to evaluate their status after discharge from an ER or hospital and to make a follow-up appointment, if appropriate. Proactive contact includes offering patients appropriate care to prevent worsening of their condition and encouraging follow-up care. In addition to scheduling an

appointment, follow-up care includes, but is not limited to, physician counseling; referrals to community resources; and disease or case management or self-management support programs. The practice's policies define the appropriate contact period.

Factor 5: The practice develops a two-way communication plan with hospitals to exchange information about hospitalized patients, enabling well-coordinated care during and after hospitalization.

Factor 6: During the transition from pediatric to adult care, it is important to promote health, disease prevention and psychosocial adjustment to adulthood. The practice's written care plan focuses on obtaining adult primary, emergency and specialty care and can include a summary of medical information (e.g., history of hospitalizations, procedures, tests), a list of providers, medical equipment and medications for patients with special health care needs, identified obstacles to transitioning to an adult care clinician and arrangements for release and transfer of medical records to the adult care clinician. Adult-only practices or family practices that do not transition pediatric patients to another clinician may enter an NA response. The practice must provide a written explanation for an NA response.

Factor 7: The practice is asked to show that its EHR technology has the capacity to electronically exchange key clinical information with facilities. That is, the practice needs to show its **capability** to send and receive key clinical information electronically (e.g., problem lists, medication lists, medication allergies, diagnostic test results) with facilities (e.g., hospitals, ERs, extended care facilities, nursing homes other providers of care, The key clinical information is based on the judgment of the clinician. There is no requirement for the practice to be able to exchange data on a regular basis now. To qualify for Meaningful Use, the practice must meet the related factors using a certified EHR.

Factor 8: The practice that transitions patients to another care setting provides a summary of care record to other care settings (e.g., long-term care facilities, hospitals) for more than 50 percent of transitions of care. If the practice does not transfer patients to another setting they may respond NA to this factor. The practice must provide a written explanation of the NA response.

CMS provides the following additional information: "The transferring party must provide the summary of care record to the receiving party. If the provider to whom the referral is made or to whom the patient is transitioned has access to the medical record maintained by the referring provider, the summary of care record would not need to be provided and that patient should not be included in the denominator for transitions of care."

Documentation

The practice provides:

Factor 1: A documented process showing that it identifies patients who have been hospitalized or have had an ER visit; a log of patients receiving care from different types of facilities; or a report listing patients seen in the ER or hospital.

Factor 2: A documented process of how it provides hospitals and ERs with clinical information; at least three de-identified examples of patient information sent to the hospital or ER.

Factor 3: A documented process for obtaining hospital discharge summaries and at least three examples of a discharge summary.

Factor 4: A documented process that includes the practice's period for patient follow-up after a hospital admission or ER visit; at least three de-identified examples of documented patient follow-up in the medical record, or a log with at least one week of data documenting systematic follow-up.

Factor 5: A documented process for two-way communication with hospitals and an example of two-way communication.

Factor 6: A copy of a written transition care plan.

Factor 7: Screenshot or other documentation showing a test of the capability of the EHR to exchange key clinical information

To qualify for Meaningful Use, the practice must meet the related factors using a certified EHR

Factor 8: This element calls for calculation of a percentage that requires a numerator and a denominator. The practice provides reports from the electronic system. The practice may use the following methodology to calculate the percentage based on 12 months of data in the electronic system. If the practice does not have 12 months of data, it may use a recent 3-month period for the calculation.

The practice may use the following methodology to calculate the percentage.

- *Denominator =* Number of transitions to another care setting during the EHR reporting period
- *Numerator* = Number of transitions of care in the denominator where a summary of care record was provided.

MHSS 6: Measure and Improve Performance

20 points

The practice uses performance data to identify opportunities for improvement and acts to improve clinical quality, efficiency and patient experience.

Element A: Measure Performance		4 points
The practice measures or receives data on the following:	**Yes**	**No**
1. At least three preventive care measures	☐	☐
2. At least three chronic or acute care clinical measures	☐	☐
3. At least two utilization measures affecting health care costs	☐	☐
4. Performance data stratified for vulnerable populations (to assess disparities in care).	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 2-3 factors	No scoring option	The practice meets 1 factor	The practice meets no factors

Explanation

The practice reviews its performance on a range of measures to help it understand its care delivery system's strengths and opportunities for improvement. Data may be from internal or external sources. If an external source (such as a health plan) provides the data, the practice must state that the information represents 75 percent of its eligible population. While some measures may fit into multiple categories appropriately, each measure may be used only once for this element.

When it selects measures of performance, the practice must document the period of measurement, the number of patients represented by the data and the patient selection process.

Factor 1: Preventive measures include: 1) services recommended by the U.S. Preventive Services Task Force (USPSTF), 2) immunizations recommended by the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention (CDC), 3) preventive care and screenings for children and for women as recommended by the Health Resources and Services Administration (HRSA) or 4) other standardized preventive measures, including those identified in *Bright Futures* for pediatric patients. Examples of measures include:

- Cancer screening
- Developmental screening
- Immunizations
- Osteoporosis screening
- Depression screening
- Assessment of behaviors affecting health, such as smoking, BMI and alcohol use.

The CMS definition of preventive services is "routine health care that includes screenings, checkups and patient counseling to prevent illnesses, diseases or other health problems."
http://www.healthcare.gov/law/about/provisions/services/lists.html

Factor 2: Chronic or acute care clinical measures may be associated with the three important conditions or others tracked by the practice (e.g., diabetes, heart disease, asthma, depression, chronic back pain, otitis media), based on evidence-based guidelines. Measures of overuse of potentially ineffective interventions, such as overuse of antibiotics for bronchitis, may also be used.

Practices where 75 percent or more of the clinicians have earned recognition in the NCQA Heart/Stroke Recognition Program (HSRP), Diabetes Recognition Program (DRP) or Back Pain Recognition Program (BPRP) automatically receive credit for factor 2 for recognitions that are current when the practice submits its MHSS Survey Tool. The practice should include a statement about the recognized clinicians, the name of the recognition program and the number or percentage of recognized clinicians in the practice.

Factor 3: The practice uses resources judiciously to help patients receive appropriate care. The types of measures monitored for this factor are intended to help practices understand how efficiently they provide care, and may include ER visits, potentially avoidable hospitalizations and hospital readmissions, redundant imaging or lab tests, prescribing generic medications vs. brand name medications and number of specialist referrals. Practices may use data from one or more payers that cover at least 75 percent of patients, or may collect data over time.

Factor 4: The data collected by the practice for one or more measures from factors 1–3 is stratified by race and ethnicity or by other indicators of vulnerable groups that reflect the practice's population demographics, such as age, gender, language needs, education, income, type of insurance (i.e., Medicare, Medicaid, commercial), disability or health status.

Vulnerable populations are "those who are made vulnerable by their financial circumstances or place of residence, health, age, personal characteristics, functional or developmental status, ability to communicate effectively, and presence of chronic illness or disability," (AHRQ) and include people with multiple co-morbid conditions or who are at high risk for frequent hospitalization or ER visits.

Documentation

Factors 1–4: The practice provides reports showing performance on the required measures.

Element B: Measure Patient/Family Experience 4 points

The practice obtains feedback from patients/families on their experiences with the practice and their care.	**Yes**	**No**	**NA**
1. The practice conducts a survey (using any instrument) to evaluate patient/family experiences on at least three of the following categories: • **Access** • **Communication** • **Coordination** • **Whole-person care/self-management support**	☐	☐	
2. The practice uses the CAHPS Patient-Centered Medical Home (MHSS) survey tool	☐	☐	☐
3. The practice obtains feedback on the experiences of vulnerable patient groups	☐	☐	
4. The practice obtains feedback from patients/families through qualitative means.	☐	☐	

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 3 factors	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

The practice may use a telephone, paper or electronic survey, and uses survey feedback to inform its quality improvement activities. The patient survey must represent the practice population including all relevant subpopulations and may not be limited to patients of only one of several clinicians or data from one payer when there are multiple payers.

Factor 1: The practice or practice designee surveys patients to assess patient/family experience. The survey must include questions related to at least three of the following categories:

- Access may include routine, urgent and after-hours care
- Communication with the practice, clinicians and staff may include feeling respected, listened to and able to get answers to questions
- Coordination of care may include being informed and up-to-date on referrals to specialists, changes in medications and lab or imaging results
- Whole person care/self-management support may include the provision of comprehensive care and self-management support and emphasizing the spectrum of care needs such as mental health; routine and urgent care; advice, assistance and support for making changes in health habits and making health care decisions.

Factor 2: The practice uses the standardized CAHPS Patient-Centered Medical Home (MHSS) survey tool to collect patient experience data.

Note

- *The CAHPS Patient-Centered Medical Home (MHSS) Survey Tool was released September 30, 2011. At that time, practices may use it to collect patient experience data to meet Factor 2. Since it was not available until early fall, 2011, Factor 2 may be marked NA until April 1, 2012. As of April 1, 2012, the NA option will no longer be available.*
- *In addition, in April 2012, practices will be able to receive Distinction from NCQA for using the CAHPS MHSS survey to collect patient experience data and:*
  - *Using a specific methodology for collecting the data,*
  - *Using a certified vendor to collect the data and*
  - *Reporting the results to NCQA which will be used to benchmark patient experience data.*

Factor 3: The practice uses survey data or other means to assess quality of care for its vulnerable subgroups. Patient self-identification in the survey may provide the basis for the sub-groups.

Vulnerable populations are "those who are made vulnerable by their financial circumstances or place of residence, health, age, personal characteristics, functional or developmental status, ability to communicate effectively, and presence of chronic illness or disability," (AHRQ) and include people with multiple co-morbid conditions or who are at high risk for frequent hospitalization or ER visits.

Factor 4: Qualitative feedback methods may include focus groups, individual interviews, patient walkthrough and suggestion boxes. Practices may use a feedback methodology conducive to its population of patients/families or parents, such as "virtual" participation such as by phone or video conference.

Documentation

Factors 1–4: The practice provides reports with summarized results of patient feedback. A blank Survey Tool does not meet the intent of this element.

Element C: Implement Continuous Quality Improvement 4 points

The practice uses an ongoing quality improvement process to:	Yes	No
1. Set goals and act to improve performance on at least three measures from Element A	☐	☐
2. Set goals and act to improve performance on at least one measure from Element B	☐	☐
3. Set goals and address at least one identified disparity in care or service for vulnerable populations	☐	☐
4. Involve patients/families in quality improvement teams or on the practice's advisory council.	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets 3-4 factors	No scoring option	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

The practice must have a clear and ongoing quality improvement strategy and process that includes regular review of performance data and evaluation of performance against goals or benchmarks. Review and evaluation offer the practice an opportunity to identify and prioritize areas for improvement, analyze potential barriers to meeting goals and plan methods for addressing the barriers.

The practice sets goals and establishes a plan to improve performance on clinical quality and resource measures (Element A) and patient experience measures (Element B).

The practice **may** participate in or implement a rapid-cycle improvement process, such as Plan-Do-Study-Act (PDSA), that represents a commitment to ongoing quality improvement and goes beyond setting goals and taking action.

Resource: One resource for the PDSA cycle is the Institute for Healthcare Improvement (IHI): http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/.

The practice may use NCQA Recognition Programs for clinical and resource measures if 75 percent of its clinicians have achieved NCQA Recognition.

Factors 1 and 2: The practice sets goals and acts to improve performance, based on clinical and resource measures (Elements A) and patient experience measures (Element B). The goal is for the practice to reach a desired level of achievement based on its self-identified standard of care.

Factor 3: The practice identifies areas of disparity among vulnerable populations, sets goals and acts to improve performance in these areas. Vulnerable groups should reflect the practice's population demographics, such as age, gender, race, ethnicity, language needs, education, income, type of insurance (i.e., Medicare, Medicaid, commercial), disability or health status.

Vulnerable populations are "those who are made vulnerable by their financial circumstances or place of residence, health, age, personal characteristics, functional or developmental status, ability to communicate effectively, and presence of chronic illness or disability," (AHRQ) and include people with multiple comorbid conditions or who are at high risk for frequent hospitalization or ER visits.

Factor 4: The practice has a process for involving patients and their families in its quality improvement efforts. At a minimum, the process specifies how patients and families are selected, their role on the quality improvement team and the frequency of team meetings.

Documentation

Factors 1–3: The practice provides reports or a completed MHSS Quality Measurement and Improvement Worksheet.

Factor 4: The practice provides a process and examples of how it meets the process (e.g., meeting notes, agenda).

Element D: Demonstrate Continuous Quality Improvement	3 points

The practice demonstrates ongoing monitoring of the effectiveness of its improvement process by:	**Yes**	**No**
1. Tracking results over time	☐	☐
2. Assessing the effect of its actions	☐	☐
3. Achieving improved performance on one measure	☐	☐
4. Achieving improved performance on a second measure	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 4 factors	The practice meets 3 factors	The practice meets 2 factors	The practice meets 1 factor	The practice meets no factors

Explanation

Quality improvement is a continual process that is built into the practice's daily operations and requires an ongoing effort of assessing, improving and reassessing. This element emphasizes ongoing quality improvement, by comparing performance results to demonstrate that the practice has gone beyond setting goals and taking action.

Resource: Solberg, L.I., G. Mosser, S. McDonald. 1997. The Three Faces of Performance Measurement: Improvement, Accountability and Research. *Journal on Quality Improvement.* 23(3);135-47.

Factor 1: The practice demonstrates that it collects clinical, resource (Element A) or patient experience (Element B) performance data and assesses the results over time. The number and frequency of the comparative data collection points (e.g., monthly, quarterly, biannually, yearly) are established by the practice.

The practice may use the process and data from NCQA clinical Recognition Programs to establish comparative data if 75 percent of its clinicians have achieved NCQA Recognition. Practices must show a comparison of at least two sets of DRP, HSRP or BPRP data or scores.

Factor 2: In Element C, the practice sets goals and acts to improve performance on clinical quality and resource measures (Element A) and on patient experience measures (Element B). In factor D, the practice identifies the steps it has taken and evaluates these steps to improve performance. The practice is not required to demonstrate improvement in this factor.

Factors 3 and 4: The practice must demonstrate that its performance on the measures has improved over time, based on its assessment.

Documentation

Factor 1: The practice provides reports, recognition results or a completed MHSS Quality Measurement and Improvement Worksheet showing performance measures over time.

Factor 2: The practice provides reports or a completed MHSS Quality Measurement and Improvement Worksheet on improvement activities and the results.

Factors 3 and 4: The practice provides reports, recognition results or a completed MHSS Quality Measurement and Improvement Worksheet showing improvement on performance measures.

Element E: Report Performance	**3 points**

The practice shares performance data from Element A and Element B:	**Yes**	**No**
1. Within the practice, results by individual clinician	☐	☐
2. Within the practice, results across the practice	☐	☐
3. Outside the practice to patients or publicly, results across the practice or by clinician.	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice meets all 3 factors	The practice meets 2 factors	The practice meets 1 factor	No scoring option	The practice does not share performance data

Explanation

The practice may use data that it produces or may use data provided by affiliated organizations, such as a larger medical group, individual practice association or health plan. Performance results must reflect care provided to all patients the practice cares for (relevant to the measure), not only patients covered by a specific payer. Data are:

- Reported to individual clinicians and practice staff (e.g., via memos, staff meeting agendas, minutes)
- Reported publicly by the health plan
- Made available to patients.

Practices where 75 percent or more of the clinicians have earned recognition in the NCQA Heart/Stroke Recognition Program (HSRP), Diabetes Recognition Program (DRP) or Back Pain Recognition Program (BPRP) automatically receive credit for performance data for recognitions that are current when the practice submits its MHSS Survey Tool. The practice should include a statement about the recognized clinicians, the name of the recognition program and the number or percentage of recognized clinicians in the practice.

Factor 1: The practice provides individual clinician reports to clinicians and practice staff. Reports reflect the care provided by the care team.

Factor 2: The practice provides practice-level reports to clinicians and practice staff.

Factor 3: Data are reported or made available to practice staff and patients or made public by a health plan or other entity. Reporting to patients may include posting in the practice's waiting room, through a letter or e-mail, on the practice's Web site or through a mass mailing to patients.

Documentation

Factors 1 and 2: The practice provides blinded reports to the practice or to clinicians and practice staff, showing summary practice or individual clinician performance, **and** explains how it provides results.

Factor 3: The practice provides an example of its reporting to patients or to the public.

Element F: Report Data Externally 2 points

The practice electronically reports:	Yes	No	NA
1. Ambulatory clinical quality measures to CMS or states[+]	☐	☐	
2. Ambulatory clinical quality measures to other external entities	☐	☐	
3. Data to immunization registries or systems[++]	☐	☐	☐
4. Syndromic surveillance data to public health agencies[++]	☐	☐	☐

Scoring

100%	75%	50%	25%	0%
The practice reports all 3-4 types of data	The practice reports 2 types of data	The practice reports 1 type of data	No scoring option	The practice does not report any type of data

Explanation

[+]Core meaningful use requirement, Menu meaningful use requirement

Factor 1: The practice reports ambulatory clinical quality measures required for Meaningful Use following CMS specifications to CMS or states. Reporting by attestation is required in 2011; electronic reporting is required in 2012.

For requirements and electronic specifications related to individual ambulatory clinical quality measures, refer to: http://www.cms.gov/QualityMeasures/03_ElectronicSpecifications.asp#TopofPage

Factor 2: The practice reports ambulatory clinical quality measures to entities other than reporting to CMS or the states for meaningful use such as the Health Resources and Services Administration (HRSA) uniform data set (UDS). To qualify the performance data must be transmitted electronically from the practice's source data system (e.g. EHR), NOT manually extracted.

Factor 3: The practice performed at least one test of the EHR technology's capacity to submit electronic data to immunization registries or immunization information systems and follow up submission if the test is successful. This factor will be NA if none of the immunization registries to which the practice submits such information has the capacity to receive the information electronically or if the practice administered no immunizations during the past 12 months (3 months if 12 months of data is not available). To qualify for Meaningful Use, the practice must meet the related factors using a certified EHR.

Factor 4: The practice performed at least one test of the EHR technology's capacity to provide electronic syndromic surveillance data to public health agencies and follow-up submission if the test is successful. This factor will be NA if none of the public health agencies to which the practice submits such information has the capacity to receive the information electronically or if the practice did not collect any reportable syndromic information on their patients during the past 12 months (3 months if 12 months is not available). To qualify for Meaningful Use, the practice must meet the related factors using a certified EHR.

Documentation

Factors 1 and 2: The practice provides *reports* demonstrating electronic data transmission to CMS, states, other entities and public health agencies.

Factors 3 and 4: The practice provides *reports* demonstrating electronic data submittal to immunization registries and public health agencies or a *screen shot* demonstrating that the capability was tested.

Crosswalk between MHSS 2011 and MHSS 2008 Elements and Factors.

MHSS 2011 Composite 1: Enhance Access and Continuity			
2011 MHSS Elements/Factors		**2008 MHSS Elements/Factors**	
1A	Access during office hours	1A/1B	Access and Communication Processes and Results
1A1	Providing same-day appointments	1A4 1A5 1A6 1B2	Maintaining the capacity to schedule patients the same day they call Scheduling same day appt. based on triage Scheduling same day apt. based on patient Appointments scheduled to meet in items 4-6
1A2	Providing timely clinical advice by telephone during office hours	1A7 1B3	Providing telephone advice during office hours Response times to meet for timely response to telephone
1A3	Providing timely clinical advice by secure electronic messages during office hours	1A9 1B4	Providing secure email consultation Response time to meet its for timely response to email
1A4	Documenting clinical advice in the medical record.	NEW	
1B	After-hours access	1A/1B	Access and Communication Processes and Results
1B1	Providing access to routine and urgent-care appointments outside regular business hours	NEW	
1B2	Providing continuity of medical record information for care and advice when the office is not open	NEW	
1B3	Providing timely clinical advice by telephone when the office is not open	1A7 1B3	Providing telephone advice 24/7 Response times to meet for timely response to telephone
1B4	Providing timely clinical advice using a secure, interactive electronic system when the office is not open	1A9 1B4	Providing secure email consultation Response time to meet its for timely response to email
1B5	Documenting after-hours clinical advice in patient records.	NEW	
1C	Electronic Access	9A	Availability of Interactive Website
1C1	More than 50 percent of patients who request an electronic copy of their health information (including problem list, diagnoses, diagnostic test results, medication lists, allergies) receive it within three business days[+]	9A5	See elements of their medical record.
1C2	At least 10 percent of patients have electronic access to their current health information (including lab results, problem lists, medication lists, and allergies) within four business days of when the information is available to the practice[++]	9A5	See elements of their medical record.

1C3	Clinical summaries are provided to patients for more than 50 percent of office visits within three business days[+]	9A5	See elements of their medical record.
1C4	Two-way communication between patients/families and the practice	NEW	
1C5	Request for appointments or prescription refills	9A1 9A4	Request appointments by reviewing clinicians schedule Request for prescription refill
1C6	Request for referrals or test results	9A2	Request referrals
		9A3	Request test results
1D	Continuity	1A/B	Access and Communication Processes and Results
1D1	Expecting patients/families to select a personal clinician	1A1	Scheduling each patient with a personal clinician for continuity of care
1D2	Documenting the patient's/family's choice of clinician	1A1	Scheduling each patient with a personal clinician for continuity of care
1D3	Monitoring the percentage of patient visits with a selected clinician or team.	1A1 1B1	Scheduling each patient with a personal clinician for continuity of care Visits with assigned personal clinician for each patient
1E	Medical Home Responsibilities	NEW	
1E1	The practice is responsible for coordinating patient care across multiple settings	NEW	
1E2	Instructions on obtaining care and clinical advice during office hours and when the office is closed	NEW	
1E3	The practice functions most effectively as a medical home if patients/families provide a complete medical history and information about care obtained outside the practice	NEW	
1E4	The care team gives the patient/family access to evidence-based care and self-management support	NEW	
1F	Culturally and Linguistically Appropriate Services	4A/4B/ 1A	Documenting Communication Needs
1F1	Assessing the racial and ethnic diversity of its population	NEW	NEW
1F2	Assessing the language needs of its population	4A1	Identify and display in the record the language preference of the patient and family
1F3	Providing interpretation or bilingual services to meet the language needs of its population	1A11	Making language services available for patients with limited English proficiency
1F4	Providing printed materials in the languages of its population	4B	Provides educational resources in the language or medium that the patient/family understands
1G	The Practice Team	3C	Practice Organization

1G1	Defining roles for clinical and nonclinical team members	NEW	
1G2	Having regular team meetings or a structured communication process	NEW	
1G3	Using standing orders for services	3C2	Non-physician staff execute standing orders for medication refills, order tests and delivery routine preventive services
1G4	Training and assigning care teams to coordinate care for individual patients	3C4	Non-physician staff coordinate care with external disease management or case management organizations.
1G5	Training and assigning care teams to support patients and families in self-management, self-efficacy and behavior change	3C3	Non-physician staff education patients/families about managing conditions
1G6	Training and assigning care teams for patient population management	3C1	Non-physician staff remind patients of appointments and collect information prior to appointments.
1G7	Training and designating care team members in communication skills	NEW	
1G8	Involving care team staff in the practice’s performance evaluation and quality improvement activities	NEW	

MHSS 2011 Composite 2: Identify and Manage Patient Populations

2011 MHSS Elements/Factors		2008 MHSS Elements/Factors	
2A	Patient Information	2A	Basic System for Managing Patient Data
2A1	Date of birth$^+$	2A2	Date of birth$^+$
2A2	Gender$^+$	2A3	Gender$^+$
2A3	Race$^+$	2A6	Race$^+$
2A4	Ethnicity$^+$	2A6	Ethnicity$^+$
2A5	Preferred language$^+$	2A5	Preferred language$^+$
2A6	Telephone numbers	2A8	Telephone numbers
2A7	E-mail address	2A9	E-mail address
2A8	Dates of previous clinical visits	2A14	Dates of previous clinical visits
2A9	Legal guardian/health care proxy	2A16	Legal guardian/health care proxy
2A10	Primary caregiver	NEW	
2A11	Presence of advance directives (NA for pediatric practices)	2B11	Presence of advance directives (NA for pediatric practices)
2A12	Health insurance information	2A17	Health insurance information
2B	Clinical Data	2B/C/D	Electronic System for Clinical Data, Use of Electronic Clinical Data, Organizing Clinical Data.
2B1	An up-to-date problem list with current and active diagnoses for more than 80 percent of patients$^+$	2D1	Problem lists
2B2	Allergies, including medication allergies and adverse reactions, for more than 80 percent of patients$^+$	2B2	Allergies and adverse reactions

2B3	Blood pressure, with the date of update for more than 50 percent of patients 2 years and older[+]	2B3	Blood pressure
2B4	Height for more than 50 percent of patients 2 years and older[+]	2B4	Height
2B5	Weight for more than 50 percent of patients 2 years and older[+]	2B5	Weight
2B6	System calculates and displays BMI (NA for pediatric practices)[+]	2B7	BMI calculated
2B7	System plots and displays growth charts (length/height, weight and head circumference (less than 2 years of age) and BMI percentile (2–20 years) (NA for adult practices)[+]	2B6 2D7	Head circumference Growth charts plotting height, weight, head circumference, and BMI
2B8	Status of tobacco use for patients 13 years and older for more than 50 percent of patients (NA for pediatric practices if all patients <13 years)[+]	2D4	Structured template for age-appropriate risk factors
2B9	List of prescription medications with the date of updates for more than 80 percent of patients[+]	2D3	List of prescribed medications
2C	Comprehensive Health Assessment	NEW	
2C1	Documentation of age- and gender-appropriate immunizations and screenings	NEW	
2C2	Family/social/cultural characteristics	NEW	
2C3	Communication needs	NEW	
2C4	Medical history of patient and family	NEW	
2C5	Advance care planning (NA for pediatric practices)	NEW	
2C6	Behaviors affecting health	NEW	
2C7	Patient and family mental health/substance abuse	NEW	
2C8	Developmental screening using a standardized tool (NA for adult-only practices)	NEW	
2C9	Depression screening for adults and adolescents using a standardized tool.	NEW	
2D	Element D: Use Data for Population Management	2F/9B	Use of System for Population Management Electronic Patient Identification
2D1	At least three different preventive care services[++]	2F4/9B3	Patients needing preventive care
2D2	At least three different chronic care services[++]	2F2/9B1 2F5/9B	Patients needing clinical review or action Patients needing specific tests

		4 2F6/9B5 2F7/9B6	 Patients needing follow up visits Patients who might benefit from disease or case management
2D3	Patients not recently seen by the practice	NEW	
2D4	Specific medications	2F3/9B2	Patients on a particular medication
MHSS 2011 Composite 3: Plan and Manage Care			
2011 MHSS Elements/Factors		**2008 MHSS Elements/Factors**	
3A	Implement Evidence-Based Guidelines	3A	Guidelines for Important Conditions
3A1	The first important condition$^+$	3A1	The first important condition$^+$
3A2	The second important condition	3A2	The second important condition
3A3	The third condition, related to unhealthy behaviors or mental health or substance abuse.	3A3	The third important condition
3B	Identify High-Risk Patients	NEW	
3B1	Establishes criteria and a systematic process to identify high-risk or complex patients	NEW	
3B2	Determines the percentage of high-risk or complex patients in its population.	NEW	
3C	Care Management	3D	Care Management for Important Conditions
3C1	Conducts pre-visit preparations	3D1	Conducting pre-visit planning with clinician reminders
3C2	Collaborates with the patient/family to develop an individual care plan, including treatment goals that are reviewed and updated at each relevant visit	3D3 3D4 3D6	Writing individualized treatment goals Assessing patient progress toward goals Review self-monitoring results and incorporating them into the medical record at each visit
3C3	Gives the patient/family a written plan of care	3D2	Writing individualized care plans
3C4	Assesses and addresses barriers when the patient has not met treatment goals	3D7	Assessing barriers when patients have not met treatment goals
3C5	Gives the patient/family a clinical summary at each relevant visit	3D10	Reviewing longitudinal representation of patient’s historical or targeted clinical measurements
3C6	Identifies patients/families who might benefit from additional care management support	NEW	
3C7	Follows up with patients/families who have not kept important appointments	3D9	Following up when patients have not kept important-appointments
3D	Medication Management	3D	Care Management for Important Conditions
3D1	Reviews and reconciles medications with patients/families for more than 50 percent of care transitions^{++}	NEW	
3D2	Reviews and reconciles medications with patients/families for more than 80 percent of care transitions	NEW	

3D3	Provides information about new prescriptions to more than 80 percent of patients/families	3D5	Reviewing medication lists with patients
3D4	Assesses patient/family understanding of medications for more than 50 percent of patients with date of assessment	3D5	Reviewing medication lists with patients
3D5	Assesses patient response to medications and barriers to adherence for more than 50 percent of patients with date of assessment	3D8	Assessing barriers when patients may have not filled, refilled or taken prescribed medications
3D6	Documents over-the-counter medications, herbal therapies and supplements for more than 50 percent of patients/families, with the date of updates	2D2	Lists of over-the-counter medications, supplements and alternative therapies
3E	Use of Electronic Prescribing	5A/B/C	Electronic prescription writing Prescribing decision support (safety and efficiency)
3E1	Generates and transmits at least 40 percent of eligible prescriptions to pharmacies[+]	NEW	
3E2	Generates at least 75 percent of eligible prescriptions	5A1	Electronic prescription writer – stand-alone system with either print capability at the office or ability to send fax or electronic message to pharmacy
3E3	Enters electronic medication orders into the medical record for more than 30 percent of patients with at least one medication in their medication list[+]	5A2	Electronic prescription writer that is linked to patient-specific demographic and clinical information.
3E4	Performs patient-specific checks for drug-drug and drug-allergy interactions[+]	5B	Element B: Prescribing Decision Support - Safety
3E5	Alerts prescribers to generic alternatives	5C	Element C: Prescribing Decision Support - Efficiency
3E6	Alerts prescribers to formulary status[++]	5C	Element C: Prescribing Decision Support - Efficiency

MHSS Composite 4: Provide Self-Care Support and Community Resources

2011 MHSS Elements/Factors		2008 MHSS Elements/Factors	
4A	Support Self-Care Process	4B	Self-Management Support
4A1	Provides educational resources or refers at least 50 percent of patients/families to educational resources to assist in self-management	4B2 4B4-4B6	Provides educational resources in the language or medium that the patient understands Provides or connects patients/ families with classes
4A2	Uses an EHR to identify patient-specific education resources and provide them to more than 10 percent of patients, if appropriate[++]	NEW	
4A3	Develops and documents self-management plans and goals in collaboration with at least 50 percent of patients/families	4B7	Provides written care plan to they patient/family
4A4	Documents self-management abilities for at least 50 percent of patients/families	4B1	Assessing patient/family preferences, readiness to change and self-management abilities.

4A5	Provides self-management tools to record self-care results for at least 50 percent of patients/families	4B3	Provides self-monitoring tools or personal health record
4A6	Counsels at least 50 percent of patients/families to adopt healthy behaviors	4B4-4B6	Provides or connects patients/ families with classes
4B	Element B: Provide Referrals to Community Resources	NEW	
4B1	Maintains a current resource list on five topics or key community service areas of importance to the patient population	NEW	
4B2	Tracks referrals provided to patients/families	NEW	
4B3	Arranges or provides treatment for mental health and substance abuse disorders	NEW	
4B4	Offers opportunities for health education programs (such as group classes and peer support.)	NEW	

MHSS 2011 Composite 5: Track and Coordinate Care

2011 MHSS Elements/Factors		2008 MHSS Elements/Factors	
5A	Test Tracking and Follow-up	6A/B	Test Tracking and Follow-up Electronic System for Managing Tests
5A1	Tracks lab tests until results are available, flagging and following up on overdue results	6A1	Tracks all laboratory tests
5A2	Tracks imaging tests until results are available, flagging and following up on overdue results	6A2	Tracks all imaging tests
5A3	Flags abnormal lab results, bringing them to the attention of the clinician	6A3	Flags abnormal test results
5A4	Flags abnormal imaging results, bringing them to the attention of the clinician	6A3	Flags abnormal test results
5A5	Notifies patients/families of normal and abnormal lab and imaging test results	6A4 6A6	Follows-up with patients for all abnormal test results Notifies patients/families of all abnormal test results
5A6	Follows up with inpatient facilities on newborn hearing and blood-spot screening (NA for adults)	NEW	
5A7	Electronically communicates with labs to order tests and retrieve results	6B1	Order lab tests
		6B3	Retrieve lab results
5A8	Electronically communicates with facilities to order and retrieve imaging results	6B2 6B4 6B5	Order imaging test Retrieve imaging text reports Retrieve imaging
5A9	Electronically incorporates at least 40 percent of all clinical lab test results into structured fields in medical records++	6B6	Route and manage current and historical test results to appropriate clinical personnel for review, filtering and comparison.

5A10	Electronically incorporates imaging test results into medical records.	NEW	
5B	Element B: Referral Tracking and Follow-up	7A	Referral Tracking
5B1	Giving the consultant or specialist the clinical reason for the referral and pertinent clinical information	7A1 7A2	Origination Clinical details
5B2	Tracking the status of referrals, including required timing for receiving a specialist’s report	7A3	Tracking status
5B3	Following up to obtain a specialist’s report	7A3	Tracking status
5B4	Establishing and documenting agreements with specialists in the medical record if co-management is needed	NEW	
5B5	Asking patients/families about self-referrals and requesting reports from clinicians	NEW	
5B6	Demonstrating the capability for electronic exchange of key clinical information (e.g., problem list, medication list, allergies, diagnostic test results) between clinicians[+]	NEW	
5B7	Providing an electronic summary of the care record to another provider for more than 50 percent of referrals.[++]	7A2	Clinical details
5C	Element C: Coordinate with Facilities and Manage Care Transitions	3E	Continuity of Care
5C1	Demonstrates its process for identifying patients with a hospital admission and patients with an emergency department visit	3E1	Identifies patients who receive care in facilities
5C2	Demonstrates its process for sharing clinical information with admitting hospitals and emergency departments	3E2	Systematically sends clinical information to the facilities
5C3	Demonstrates its process for consistently obtaining patient discharge summaries from the hospital and other facilities	3E3	Reviews information from facilities
5C4	Demonstrates its process for contacting patients/families for appropriate follow-up care within an appropriate period following a hospital admission or emergency department visit	3E4	Contacts patients after discharge from facilities
5C5	Demonstrates its process for exchanging patient information with the hospital during a patient’s hospitalization	3E2	Systematically sends clinical information to the facilities
5C6	Collaborates with the patient/family to develop a written care plan for patients transitioning from pediatric care to adult care (NA for adult-only or family medicine practices)	3E9	For patients transitioning to other care, develops a written transition plan in collaboration with the patient and family

5C7	Demonstrates the capability for electronic exchange of key clinical information with facilities	NEW	
5C8	Provides an electronic summary-of-care record to another care facility for more than 50 percent of transitions of care[++]	NEW	

MHSS 2011 Composite 6: Measure and Improve Performance

2011 MHSS Elements/Factors		2008 MHSS Elements/Factors	
6A	Element A: Measure Performance	8A	Measures of Performance
6A1	At least three preventive care measures	8A1	Clinical process
6A2	At least three chronic or acute care clinical measures	8A1	Clinical process
6A3	At least two utilization measures affecting health care costs	NEW	
6A4	Performance data stratified for vulnerable populations (to assess disparities in care).	NEW	
6B	Element B: Measure Patient/Family Experience	8B	Patient Experience Data
6B1	The practice conducts a survey (using any instrument) to evaluate patient/family experiences on at least three of the following categories: • Access • Communication • Coordination • Whole-person care/self-management support	8B1-4	Patient access to care Quality of physician communication Patient/family confidence in self-care Patient/family satisfaction with care
6B2	The practice uses the CAHPS Patient-Centered Medical Home (MHSS Elements/Factors) survey tool	NEW	
6B3	The practice obtains feedback on the experiences of vulnerable patient groups	NEW	
6B4	The practice obtains feedback from patients/families through qualitative means.	NEW	
6C	Element C: Implement Continuous Quality Improvement	8D	Setting Goals and Taking Action
6C1	Set goals and act to improve performance on at least three measures from Element A	8D1-2	Set goals based on measurement results from process and experience data Take action where identified to improve performance
6C2	Set goals and act to improve performance on at least one measure from Element B	8D1-2	Set goals based on measurement results from process and experience data Take action where identified to improve performance
6C3	Set goals and address at least one identified disparity in care or service for vulnerable populations	NEW	
6C4	Involve patients/families in quality improvement teams or on the practice's	NEW	

	advisory council.		
6D	Element D: Demonstrate Continuous Quality Improvement	8E	Reporting Standardized Measures
6D1	Tracking results over time	8E	Reporting Standardized Measures
6D2	Assessing the effect of its actions	8E	Reporting Standardized Measures
6D3	Achieving improved performance on one measure	8E	Reporting Standardized Measures
6D4	Achieving improved performance on a second measure	8E	Reporting Standardized Measures
6E	Element E: Report Performance	8C	Reporting to Physicians
6E1	Within the practice, results by individual clinician	8C2	By individual physician
6E2	Within the practice, results across the practice	8C1	Across the practice
6E3	Outside the practice to patients or publicly, results across the practice or by clinician.	8C1-2	By individual physician Across the practice
6F	Element F: Report Data Externally	8F	Electronic Reporting External Entities
6F1	Ambulatory clinical quality measures to CMS or states[+]	8F	Electronic Reporting External Entities
6F2	Ambulatory clinical quality measures to other external entities	8F	Electronic Reporting External Entities
6F3	Data to immunization registries or systems[++]	8F	Electronic Reporting External Entities
6F4	Syndromic surveillance data to public health agencies[++]	8F	Electronic Reporting External Entities

NCQA
Measuring quality.
Improving health care.

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NCQA'S MEDICAL HOME SYSTEM SURVEY (MHSS) 2011 AND CMS STAGE 1 MEANINGFUL USE REQUIREMENTS

CMS Meaningful Use Requirements*

All Providers Must Meet…

- A **core set** of 15 requirements
- Five of 10 **menu requirements**
  - Five must include *one* of the following:
    - The capability to submit electronic data to immunization registries/information systems, *or*
    - The capability to submit electronic syndromic surveillance data to public health agencies

*https://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp#BOOKMARK4

MHSS 2011 Standards and Elements +Core Requirements ++Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 1: Enhance Access and Continuity		
1A: Access During Office Hours	The practice has a written process and defined standards, and demonstrates that it monitors performance against the standards for: 1. Providing same-day appointments 2. Providing timely clinical advice by telephone during office hours 3. Providing timely clinical advice by secure electronic messages during office hours 4. Documenting clinical advice in the patient medical record.	
1B: After-Hours Access	The practice has a written process and defined standards and demonstrates that it monitors performance against the standards for: 1. Providing access to routine and urgent-care appointments outside regular business hours 2. Providing continuity of medical record information for care and advice when office is not open 3. Providing timely clinical advice by telephone when the office is not open 4. Providing timely clinical advice using a secure, interactive electronic system when the office is not open 5. Documenting after-hours clinical advice in patient records	

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 1: Enhance Access and Continuity		
1C: Electronic Access	The practice provides the following information and services to patients and families through a secure electronic system. 1. More than 50 percent of patients who request an electronic copy of their health information (e.g., problem lists, diagnoses, diagnostic test results, medication lists and allergies) receive it within three business days^{+} 2. At least 10 percent of patients have electronic access to their current health information (including lab results, problem list, medication lists and allergies) within four business days of when the information is available to the practice^{++} 3. Clinical summaries are provided to patients for more than 50 percent of office visits within three business days^{+} 4. Two-way communication between patients/families and the practice 5. Request for appointments or prescription refills 6. Request for referrals or test results.	CORE REQUIREMENTS 12. Provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, allergies), upon request More than 50% of all patients who request an electronic copy of their health information are provided it within 3 business days. Exclusion: Any EP that has no requests from patients or their agents for an electronic copy of patient health information during the EHR reporting period. 13. Provide clinical summaries for patients for each office visit Clinical summaries provided to patients for more than 50% of all office visits within 3 business days. *Exclusion:* Any EP who has no office visits during the EHR reporting period). MENU REQUIREMENT 5. Provide patients with timely electronic access to health information (including lab results, problem list, medication lists and allergies) within 4 business days of information being available to the EP At least 10% of patients are provided timely (available to the patient within four business days of being updated in the certified EHR technology) electronic access to their health information subject to the EP's discretion to withhold certain information. *Exclusion:* Any EP that neither orders nor creates lab tests or information that would be contained in the problem list, medication list, medication allergy list (or other information as listed at 45 CFR 170.304(g)) during the EHR reporting period.
1D: Continuity	The practice provides continuity of care for patients/families by: 1. Expecting patients/families to select a personal clinician 2. Documenting the patient's/family's choice of clinician 3. Monitoring the percentage of patient visits with selected clinician or team.	

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 1: Enhance Access and Continuity		
1E: Medical Home Responsibilities	The practice has a process and materials that it provides to patients/families on the role of the medical home, which include the following. 1. The practice is responsible for coordinating patient care across multiple settings 2. Instructions on obtaining care and clinical advice during office hours and when the office is closed 3. The practice functions most effectively as a medical home if patients provide a complete medical history and information about care obtained outside of the practice 4. The care team provides the patient/family with access to evidence-based care and self-management support	
1F: Culturally and Linguistically Appropriate Services (CLAS)	The practice engages in activities to understand and meet the cultural and linguistic needs of its patients/families. 1. Assessing the racial and ethnic diversity of its population 2. Assessing the language needs of its population 3. Providing interpretation or bilingual services to meet the language needs of its population 4. Providing printed materials in the languages of its population	
1G: The Practice Team	The practice uses a team to provide a range of patient care services by: 1. Defining roles for clinical and nonclinical team members 2. Having regular team meetings or a structured communication process 3. Using standing orders for services 4. Training and assigning care teams to coordinate care for individual patients 5. Training and assigning care teams to support patients and families in self-management, self-efficacy and behavior change 6. Training and assigning care teams for patient population management *7.* Training and designating care team members in communication skills *8.* Involving care team staff in the practice's performance evaluation and quality improvement activities	

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 2: Identify and Manage Patient Populations		
2A: Patient Information	The practice uses an electronic system that records the following as structured (searchable) data for more than 50 percent of the patients. 1. Date of birth^{+} 2. Gender^{+} 3. Race^{+} 4. Ethnicity^{+} 5. Preferred language^{+} 6. Telephone numbers 7. E-mail address 8. Dates of previous clinical visits 9. Legal guardian/health care proxy 10. Primary caregiver 11. Presence of advance directives (NA for pediatric practices) 12. Health insurance information	CORE REQUIREMENT 7. Record all of the following demographics • Preferred language • Gender • Race • Ethnicity • Date of birth More than 50 percent of all unique patients seen by the EP have demographics recorded as structured data.
2B: Clinical Data	The practice uses an electronic system to record the following as structured (searchable) data. 1. An up-to-date problem list with current and active diagnoses for more than 80 percent of patients^{+} 2. Allergies, including medication allergies and adverse reactions* for more than 80 percent of patients^{+} 3. Blood pressure, with the date of update for more than 50 percent of patients 2 years and older^{+} 4. Height for more than 50 percent of patients 2 years and older^{+} 5. Weight for more than 50 percent of patients 2 years and older^{+} 6. System calculates and displays BMI (NA for pediatric practices)$^{+}$ 7. System plots and displays growth charts (length/height, weight and head circumference (less than 2 years of age) and BMI percentile (2–20 years) (NA for adult practices)$^{+}$ 8. Status of tobacco use for patients 13 years and older for more than 50 percent of patients^{+} 9. List of prescription medications with date of updates for more than 80 percent of patients^{+}	CORE REQUIREMENTS 3. Maintain an up-to date problem list of current and active diagnoses. More than 80% of all unique patients seen by the EP have at least one entry or an indication that no problems are known for the patient recorded as structured data. 5. Maintain active medication list More than 80% of all unique patients seen by the EP have at least one entry (or an indication that the patient is not currently prescribed any medication) recorded as structured data. 6. Maintain active medication allergy list More than 80% of all unique patients seen by the EP have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data. 8. Record and chart changes in the following vital signs • Height • Weight • Blood pressure • Calculate and display: BMI • Plot and display growth charts for children 2–20 years, including BMI.

MHSS 2011 Standards and Elements ⁺Core Requirements ⁺⁺Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 2: Identify and Manage Patient Populations		
2B: Clinical Data *continued*		For more than 50% of all unique patients age 2 and over seen by the EP, height, weight and blood pressure are recorded as structured data. *Exclusion:* Any EP who either see no patients 2 years or older, or who believes that all three vital signs of height, weight, and blood pressure of their patients have no relevance to their scope of practice. 9. Record smoking status for patients 13 years old or older More than 50% of all unique patients 13 years old or older seen by the EP have smoking status recorded as structured data *Exclusion:* Any EP who sees no patients 13 years or older
2C: Comprehensive Health Assessment	To understand the health risks and information needs of patients/families, the practice conducts and documents a comprehensive health assessment that includes: 1. Documentation of age- and gender appropriate immunizations and screenings 2. Family/social/cultural characteristics 3. Communication needs 4. Medical history of patient and family 5. Advance care planning (NA for pediatric practices) 6. Behaviors affecting health 7. Patient and family mental health/substance abuse 8. Developmental screening using a standardized tool (NA for practices with no pediatric patients) 9. Depression screening for adults and adolescents using a standardized tool.	
2D: Use Data for Population Management	The practice uses patient information, clinical data and evidence-based guidelines to generate lists of patients *and* to proactively remind patients/families and clinicians of services needed for: 1. At least three different preventive care services⁺⁺ 2. At least three different chronic or acute care services⁺⁺ 3. Patients not recently seen by the practice 4. Specific medications	MENU REQUIREMENTS 3. Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research or outreach Generate at least one report listing patients of the EP with a specific condition. 4. Send reminders to patients per patient preference for preventive/ follow-up care More than 20% of all patients 65 years or older or 5 years old or younger were sent an appropriate reminder during the EHR reporting period. *Exclusion:* An EP who has no patients 65 years old or older or 5 years old or younger with records maintained using certified EHR

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 3: Plan and Manage Care		
3A: Implement Evidence-Based Guidelines	The practice implements evidence-based guidelines through point of care reminders for patients with: 1. The first important condition^{+} 2. The second important condition^{+} 3. The third condition, related to unhealthy behaviors or mental health or substance abuse	CORE REQUIREMENT 11. Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track compliance with that rule. Implement one clinical decision support rule.
3B: Identify High-Risk Patients	To identify high-risk or complex patients the practice: 1. Establishes criteria and a systematic process to identify high-risk or complex patients 2. Determines the percentage of high-risk or complex patients in its population.	
3C: Care Management	The care team performs the following for at least 75 percent of the patients for the patients identified in Elements A and B: 1. Conducts pre-visit preparations 2. Collaborates with the patient/family to develop an individualized care plan, including treatment goals that are reviewed and updated at each relevant visit 3. Gives the patient/family a written plan of care 4. Assesses and addresses barriers when patient has not met treatment goals 5. Provides patient/family a clinical summary at each relevant visit 6. Identifies patients/families who might benefit from additional care management support 7. Follows up with patients/families who have not kept important appointments	
3D: Medication Management	The practice manages medications in the following ways. 1. Reviews and reconciles medications with patients/families for more than 50 percent of care transitions^{++} 2. Reviews and reconciles medications with patients/families for more than 80 percent of care transitions 3. Provides information about new prescriptions to more than 80 percent of patients/families 4. Assesses patient/family understanding of medications for more than 50 percent of patients with date of assessment 5. Assesses patient response to medications and barriers to adherence for more than 50 percent of patients with date of assessment 6. Documents over-the-counter medications, herbal therapies and supplements for more than 50 percent of patients/families with the date of updates.	MENU REQUIREMENT 7. The EP who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation The EP performs medication reconciliation for more than 50% of transitions of care in which the patient is transitioned into the care of the EP. *Exclusion:* An EP who was not the recipient of any transitions of care during the EHR reporting period.

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 3: Plan and Manage Care		
3E: Use Electronic Prescribing	The practice uses an electronic prescription system with the following capabilities. 1. Generates and transmits at least 40 percent of eligible prescriptions to pharmacies^{+} 2. Generates at least 75 percent of eligible prescriptions 3. Enters electronic medication orders into the medical record for more than 30 percent of patients with at least one medication in their medication list^{+} 4. Performs patient-specific checks for drug-drug and drug-allergy interactions^{+} 5. Alerts prescriber to generic alternatives 6. Alerts prescriber to formulary status^{++}	CORE REQUIREMENTS 1. Use CPOE (computerized physician order entry) for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines. More than 30% of unique patients with at least one medication in their medication list seen by the EP have at least one medication entered using CPOE. *Exclusion:* Any EP who writes fewer than 100 prescriptions during the EHR reporting period). 2. Implement drug-drug and drug-allergy interaction checks The EP has enabled this functionality for the entire EHR reporting period 4. Generate and transmit permissible prescriptions electronically (eRx) More than 40% of all permissible prescriptions written by the EP are transmitted electronically using certified EHR technology *Exclusion:* Any EP who writes fewer than 100 prescriptions during the reporting period. MENU REQUIREMENT 1. Implement drug formulary checks The EP has enabled this functionality and has access to at least one internal or external formulary for the entire EHR reporting period. *Exclusion:* Any EP who writes fewer than 100 prescriptions during the EHR reporting period.
MHSS 4: Provide Self-Care Support and Community Resources		
4A: Support Self-Care Process	The practice conducts activities to support patients/families in self-management: 1. Provides educational resources or refers at least 50 percent of patients/families to educational resources to assist in self-management 2. Uses an EHR to identify patient-specific education resources and provide to more than 10 percent of patients, if appropriate^{++} 3. Develops and documents self-management plans and goals in collaboration with at least 50 percent of patients/families 4. Documents self-management abilities for at least 50 percent of patients/families 5. Provides self-management tools to record self-care results for at least 50 percent of patients/families	MENU REQUIREMENT 6. Use certified EHR to identify patient-specific education resources and provide those resources to the patient if appropriate. More than 10% of all unique patients seen by the EP are provided patient-specific education resources.

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 4: Provide Self-Care Support and Community Resources		
4A: Support Self-Care Process *continued*	6. Counsels at least 50 percent of patients/families to adopt healthy behaviors	
4B: Provide Referrals to Community Resources	The practice supports patients/families that need access to community resources: 1. Maintains a current resource list on five topics or key community service areas of importance to practice population 2. Tracks referrals provided to patients/families 3. Arranges or provides treatment for mental health and substance abuse disorders 4. Offers opportunities for health educational programs (such as group classes and peer support).	
MHSS 5: Track and Coordinate Care		
5A: Test Tracking and Follow-Up	The practice has a documented process for and demonstrates that it: 1. Tracks lab tests until results are available, flagging and following up on overdue results 2. Tracks imaging tests until results are available, flagging and following up on overdue results 3. Flags abnormal lab results, bringing them to the attention of the clinician 4. Flags abnormal imaging results, bringing them to the attention of the clinician 5. Notifies patients/families of normal and abnormal lab and imaging test results 6. Follows-up with inpatient facility on newborn hearing and newborn blood-spot screening (NA for adults) 7. Electronically communicates with labs to order tests and retrieve results 8. Electronically communicates with facilities to order and retrieve imaging results 9. Electronically incorporates at least 40 percent of all clinical lab test results into structured fields in the medical record^{++} 10. Electronically incorporates imaging test results into in the medical record.	MENU REQUIREMENT 2. Incorporate clinical lab test results into EHR as structured data More than 40% of all clinical lab tests results ordered by the EP during the EHR reporting period whose results are either in a positive/negative or numerical format are incorporated in certified EHR technology as structured data. *Exclusion:* An EP who orders no lab tests whose results are either in a positive/negative or numeric format during the EHR reporting period.

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 5: Track and Coordinate Care		
5B: Referral Tracking and Follow-Up	The practice coordinates referrals by: 1. Giving the consultant or specialist the clinical reason for the referral and pertinent clinical information 2. Tracking the status of the referrals, including required timing for receiving a specialist's report 3. Following up to obtain specialist's report 4. Establishing and documenting agreements with specialists in the medical record if co-management is needed 5. Asking patients/families about self-referrals and requesting reports from clinicians 6. Demonstrating capacity for electronic exchange of key clinical information (e.g., problem list, medication list, allergies, diagnostic test results) between clinicians^{+} 7. Providing an electronic summary of care record to another provider for more than 50 percent of referrals.$^{++}$	CORE REQUIREMENT 14. Capability to exchange key clinical information (for example, problem list, medication list, allergies, diagnostic test results), among providers of care and patient authorized entities electronically Performed at least one test of certified EHR technology's capacity to electronically exchange key clinical information. MENU REQUIREMENT **8. The EP who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care should provide summary care record for each transition of care or referral** The EP who transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than 50% of transitions of care and referrals. *Exclusion:* An EP who neither transfers a patient to another setting nor refers a patient to another provider during the EHR reporting period.
5C: Coordinate With Facilities and Care Transitions	On its own or in conjunction with an external organization, the practice systematically: 1. Demonstrates its process for identifying patients with a hospital admission and patients with an emergency department visit 2. Demonstrates its process for sharing clinical information with admitting hospitals or emergency departments 3. Demonstrates its process for consistently obtaining patient discharge summaries from the hospital and other facilities 4. Demonstrates its process for contacting patients/families for appropriate follow-up care within an appropriate period following a hospital admission or emergency department visit 5. Demonstrates its process for exchanging patient information with the hospital during a patient's hospitalization 6. Collaborates with the patient/family to develop a written care plan for patients transitioning from pediatric care to adult care (NA for adult-only and family practices) 7. Demonstrates the ability for electronic exchange of key clinical information with facilities 8. Provides an electronic summary-of-care record to another care facility for more than 50 percent of transitions of care.$^{++}$	MENU REQUIREMENT **8. The EP who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care should provide summary care record for each transition of care or referral** The EP who transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than 50% of transitions of care and referrals. *Exclusion:* An EP who neither transfers a patient to another setting nor refers a patient to another provider during the EHR reporting period.

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 6: Measure and Improve Performance		
6A: Measure Performance	The practice measures or receives data on the following: • At least three preventive care measures • At least three chronic or acute care clinical measures • At least two utilization measures affecting health care costs • Performance data stratified for vulnerable populations (to assess disparities in care).	
6B: Measure Patient/Family Experience	The practice obtains feedback from patients/families on their experiences with the practice and their care. 1. The practice conducts a survey (using any instrument) to evaluate patient/family experiences on at least three of the following categories: • Access • Communication • Coordination • Whole person care/self-management support 2. The practice uses the Patient-Centered Medical Home version of the CAHPS Clinician & Group Survey Tool 3. The practice obtains feedback on experiences of vulnerable patient groups 4. The practice obtains feedback from patients/families through qualitative means.	
6C: Implement Continuous Quality Improvement	The practice uses an ongoing quality improvement process to: 1. Set goals and act to improve on at least three measures from Element A 2. Set goals and act to improve quality on at least one measure from Element B 3. Set goals and address at least one identified disparity in care/service for vulnerable populations 4. Involve patients/families in quality improvement teams or on the practice's advisory council.	
6D: Demonstrate Continuous Quality Improvement	The practice demonstrates ongoing monitoring the effectiveness of its improvement process by: 1. Tracking results over time 2. Assessing the effect of its actions 3. Achieving improved performance on one measure 4. Achieving improved performance on a second measure	

MHSS 2011 Standards and Elements $^{+}$Core Requirements $^{++}$Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
MHSS 6: Measure and Improve Performance		
6E: Report Performance	The practice shares performance data from Element A and Element B: 1. Within the practice, results by individual clinician 2. Within the practice, results across the practice 3. Outside the practice to patients or publicly, results across the practice or by clinician.	
6F: Report Data Externally	The practice electronically reports: 1. Ambulatory clinical quality measures to CMS^{+} 2. Ambulatory clinical quality measures to other external entities 3. Data to immunization registries or systems^{++} 4. Syndromic surveillance data to public health agencies.$^{++}$	CORE REQUIREMENT 10. Report ambulatory clinical quality measures to CMS Successfully report to CMS ambulatory clinical quality measures selected by CMS in the manner specified by CMS. For requirements and electronic specifications related to individual ambulatory clinical quality measures, refer to: http://www.cms.gov/QualityMeasures/03_ElectronicSpecifications.asp#TopofPage MENU REQUIREMENTS 9. Capability to submit electronic data to immunization registries or immunization information systems and actual submission according to applicable law and practice. Performed at least one test of certified EHR technology's capacity to submit electronic data to immunization registries and follow up submission if the test is successful (unless none of the immunization registries to which the EP submits such information has the capacity to receive the information electronically.) *Exclusion:* Any EPs who administers no immunizations during the EHR reporting period or where no immunization registry has the capacity to receive the information electronically. 10. Capability to submit electronic syndromic surveillance data to public health agencies and actual submission according to applicable law and practice Performed at least one test of certified EHR technology's capacity to provide electronic syndromic surveillance data to public health agencies and follow-up submission if successful (unless none of the public health agencies to which an EP submits such information has the capacity to receive electronically). *Exclusion:* An EP who does not collect any reportable syndromic information on their patients during the EHR reporting period or does not submit such information to any public health agency that has the capacity to receive the information electronically.

MHSS 2011 Standards and Elements ⁺Core Requirements ⁺⁺Menu Requirements		Stage 1 Meaningful Use Requirements (Core and Menu)
6G: Use Certified EHR Technology	This element is for data collection purposes only and <u>*will not*</u> be scored. *Note: Factor 1 requires comments.* 1. The practice uses an EHR system (or modules) that has been certified and issued a Certified HIT Products List (CHPL) Number(s) under the ONC (Office of the National Coordinator for Health Information Technology) HIT certification program⁺ 2. The practice attests to conducting a security risk analysis of its electronic health record (EHR) system (or modules) and implementing security updates as necessary and correcting identified security deficiencies⁺	CORE REQUIREMENT 15. **Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities.** Conduct or review a security risk analysis in accordance with the requirements under 45 CFR 164.308(a)(1) and implement security updates as necessary and correct identified security deficiencies as part of its risk management process.

MHSS Scoring Delphi Process Overview

To determine how elements in the Medical Home System Survey should be scored, a Delphi process was used. A panel of experts completed the following exercise in three rounds.

Medical Home System Survey Point Allocation Exercise

This workbook provides instructions on the point allocation method used by NCQA and allows you to document your recommended point allocation for the PCMH standards and elements.

Scoring Rules

► There are 100 total points to distribute for the Patient-Centered Medical Home Recognition

► You may assign any value to the standards and elements, however, all standard points and element percentages must be whole numbers. The resulting element points will be expressed to one decimal place.

► Using the worksheet and following the instructions below, you will first allocate the 100 points across all 6 standards. Then within each of the six standards you will allocate points to each element by entering the percent of that standard's points that should be assigned to the element. The worksheet will calculate the element points.

Principles of Allocation

In allocating points among the standards and elements, consider the following:

► How to allocate points across standards to reflect relative importance but address minimum performance in an area. For example, if two standards are given greater than 50 points, a practice could be Level 2 (with current PCMH scoring) without passing the remaining four standards.

► How highly you value the content that the standard or element covers.

► The degree of difficulty of the standard or element. For example, if an element is a stretch at this time, allocate fewer points.

Instructions

1. There are three worksheets included in this file: 1) Instructions 2) PCMH Sample and 3) Scoring Worksheet.

2. Print these instructions and the sample sheet.

Scoring Worksheet:

3. In the turquoise cells at the top of the Scoring Worksheet, enter your proposed allocation of points to each standard for PCMH Recognition. The points you enter will automatically copy down to the standard and element table below.

Important: After you have entered the points, be sure that the total in the yellow cell = 100.

Note: The worksheet will only allow entry in the necessary cells.

4. In the "Element" table enter the percent of points that you want to allocate to each element in the turquoise cells. The worksheet will apply the percentage you enter to the points allocated for the standard, providing the proposed points for the element.
   Important: After you have entered the percent allocation, be sure the percent total in the yellow cell for each standard = 100%.
5. In the "Element" table there is a "Must Pass" column. In the pink cells, for each element, please indicate yes or no (Y/N) if you think that element should be designated as must pass.

6. Save the electronic sheet, adding your last name to the file name.

7. E-Mail or fax a copy of the sheet to Tisha Fox at fox@ncqa.org or 202-955-3599 by October 11, 2010.