GUIDEBOOK TO
STAGE I MEANINGFUL USE

2010-2011

A Project of L.A. Care Health Plan

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CONTENTS

BACKGROUND ON MEANINGFUL USE

Provider EHR Incentives

Under the provisions of the American Recovery and Reinvestment Act of 2009 (ARRA, or the "Stimulus Act"), physicians are eligible for financial incentives for demonstrating "meaningful use" of an electronic health record (EHR) system. Generally, almost all Medicare providers will be eligible for up to $44,000 in incentives paid out over 5 years beginning in 2011. A subset of Medi-Cal providers will be eligible for up to $63,750 paid out over six years.

Since ARRA was signed into law in February 2009, the federal Centers for Medicare and Medicaid Services (CMS) have been involved in a regulatory process to determine the final rules for what "meaningful use" entails. This process culminated in a final rule which was published on July 28, 2010. By federal rules, the final definition will take effect at the end of September 2010.

At its core, meaningful use is a set of criteria, known as "objectives and measures," on which physicians will have to report. Physicians accessing the Medicare incentives will report to CMS, while physicians in the Medi-Cal program will report to the State of California.

Reporting of Objectives and Measures

The main set of items providers and hospitals will report are known as "Objectives and Measures." The objectives are broad policy goals that CMS hopes to achieve through meaningful use – such as encouraging electronic prescribing. The measures are the actual criteria that providers and hospitals will have to meet to realize that objective.

The objectives and measures are broken into two parts, known as "core" objectives and "menu" objectives. The Core Objectives and measures are a list of fifteen items on which all providers will have to report. In addition to the 15 core items, physicians will select 5 additional "menu" objectives from a list of ten options.

Reporting of Clinical Quality Measures

One of the Objectives is that providers will report on Clinical Quality Measures. Providers must report clinical quality measures to CMS or to the state, depending on whether they are receiving incentive payments via Medicare or Medi-Cal.

Within the Clinical Quality Measure Objective, three of the quality measures will be "core" measures on which all providers will have to report – Adult Weight Screening and Follow-up,

Hypertension: Blood Pressure Management, and Tobacco Screening and Cessation. If a provider feels that one of these core measures do not apply to his or her specialty, then that provider may report on one of three "alternate core" quality measures – Influenza Screening for Patients over the Age of 50, Weight Assessment and Counseling for Children and Adolescents, and Childhood Immunization Status.

In addition, providers will select three clinical quality measures from a list of 41 options. For example, physicians may choose to report on the percentage of their female patients who receive breast cancer screening, or the percentage of their patients who receive proper asthma treatments. This will give providers the flexibility to select measures that are most applicable to their practice specialty.

A complete list of core, alternate core, and optional quality measures is available by clicking on the "Report clinical quality measures to CMS or states" tab on the chart on the next page.

HOW TO USE THIS GUIDEBOOK

This guidebook is intended to walk physicians through the details of gathering the correct data for reporting on the objectives and measures necessary for determining meaningful use. On the following page is a chart of the "core" and "menu" objectives that physicians will report. Clicking on the measure will take the physician to a page with the following headings:

Description

This is a very high-level description of the objective and measure.

Objective

This is the objective, as described in the final rule.

Measure

The measure is the actual criteria that physicians will have to report, as described in the final rule.

Calculation

Many of the objectives and measures on which physicians will report are based on percentages. For example, physicians will report on "40% of permissible prescriptions are transmitted electronically."

The calculation of any percentage involves a numerator and a denominator:

Numerator/Denominator * 100 = Percentage

Most of the content of this guidebook is meant to help physicians determine, for all measures based on percentages, what numbers to include in the numerator and the denominator. For 2011, these two numbers, the numerator and the denominator, will be all that the physician reports to CMS or to the State of California.

For example, consider a physician who is trying to achieve the measure "*Transmit at least 40% of permissible prescriptions electronically*." That physician would take the total number of prescriptions transmitted electronically (the numerator) divided by the total number of prescriptions written (the denominator) and multiply by 100. If the resulting percentage is more than 40%, then the physician has achieved that measure.

Exclusions and Other Considerations

In addition to defining the objectives and measures on which physicians will report, the final rule also lays out a series of exclusions and other rules governing how the percentage is calculated, which patients to include, and other considerations. Almost all of the objectives and measures have some "ground rules" governing how they are implemented and reported.

Building off of the previous example, the physician in this case would have several exclusions and considerations to consider. First, the denominator would only include *permissible* prescriptions. As of the writing of this rule, federal regulations allowing for electronic prescribing of Schedule II drugs have not been finalized. Therefore, those prescriptions are not included when calculating the percentage. Second, the physician would be allowed to include in the numerator any prescription that was transmitted electronically, regardless of how it was received by the pharmacy. If the EHR converted the transmission into a fax, that would still count.

This guidebook is intended to help physicians walk through the exclusions and considerations for every measure, in order to gain the most accurate calculation possible. Most of these special considerations are intended to make the rules easier to achieve for physicians.

DEFINITIONS OF KEY TERMS

There are several key terms that are important for physicians and their practices to understand prior to using this guidebook. These terms are described below.

Certified EHR Technology

In order to achieve meaningful use, a physician will have to use EHR technology that has been certified by entities named by the Federal Government. The rules for how EHRs will be certified have been defined in a concurrent federal rulemaking process. It is expected that the first lists of certified systems will be available sometime this fall.

While certification will somewhat physicians' choices regarding the EHR systems they select, it will also give physicians confidence that their EHR systems contain the functionality that will enable them to achieve meaningful use. Throughout this guidebook there are references to functions that any certified EHR system will be required to perform. By using these functions, the process of achieving some aspects of meaningful use can be automated.

EHR Reporting Period

For the first year in which physicians hope to demonstrate meaningful use, they will only have to report on objectives and measures for 90 days. For that first year, 90 days is the EHR reporting period. This period stays the same no matter which year the physician begins to demonstrate meaningful use.

Continuing with the example of electronic prescribing, the physician would only count (for the numerator and the denominator) prescriptions written during that 90-day period.

After that first year, the reporting period is the entire calendar year.

Unique Patients versus Patient Encounters

Finally, it is important for physicians to note that some objectives are based on unique patients, regardless of how many times an individual patient is seen. For example, recording any particular patient's height and weight only needs to be done once during the EHR reporting period.

Other objectives, on the other hand, are based on patient encounters. For example, the objective "provide clinical summaries" is based on office visits, even if the same patient is seen multiple times during the EHR reporting period.

This guidebook informs physicians of which criteria to use for each of the objectives and measures listed.

SUMMARY OVERVIEW OF MEANINGFUL USE OBJECTIVES

Objective	Measure
CORE SET:	
Computer provider order entry (CPOE) for medication orders.	More than 30% of patients with at least one medication in their medication list have at least one medication ordered through CPOE.
Generate and transmit permissible prescriptions electronically.	More than 40% are transmitted electronically using certified EHR technology.
Report clinical quality measures to CMS or states.	For 2011, provide aggregate numerator and denominator through attestation; for 2012, electronically submit measures.
Implement one clinical decision support rule and ability to track compliance with the rule.	One clinical decision support rule implemented.
On request, provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, and medication allergies).	More than 50% of requesting patients receive electronic copy within 3 business days.
Provide patients with clinical summaries for each office visit.	Clinical summaries provided to patients for more than 50% of all office visits within 3 business days
Implement drug-drug and drug-allergy interaction checks.	Functionality is enabled for these checks for the entire reporting period.
Record patient demographics (sex, race, ethnicity, date of birth, and preferred language).	More than 50% of patients' demographic data recorded as structured data.
Maintain up-to-date problem list of current and active diagnoses.	More than 80% of patients have at least one entry recorded as structured data.

Maintain active medication list.	More than 80% of patients have at least one entry recorded as structured data.
Maintain active medication allergy list.	More than 80% of patients have at least one entry recorded as structured data.
Record vital signs and chart changes (height, weight, blood pressure, body-mass index, growth charts for children).	More than 50% of patients 2 years of age or older have height, weight, and blood pressure recorded as structured data.
Record smoking status for patients 13 years of age or older.	More than 50% of patients 13 years of age or older have smoking status recorded as structured data.
Implement capability to electronically exchange key clinical information (for example, problem list, medication list, medication allergies, and diagnostic test results) among providers and patient-authorized entities.	Perform at least one test of EHR's capacity to electronically exchange information.
Implement systems to protect privacy and security of patient data in the EHR.	Conduct or review a security risk analysis, implement security updates as necessary, and correct identified security deficiencies.
MENU SET:	
Implement drug formulary checks	Drug formulary check system is implemented and has access to at least one internal or external drug formulary for the entire reporting period.
Incorporate clinical laboratory test results into EHRs as structured data.	More than 40% of clinical laboratory test results whose results are in positive/negative or numerical format are incorporated into EHRs as structured data.
Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach.	Generate at least one listing of patients with a specific condition.
Send reminders to patients (per patient preference) for preventive and follow-up care.	More than 20% of patients 65 years of age or older or 5 years of age or younger are sent appropriate reminders.
Provide patients with timely electronic access to their health information (including laboratory results, problem list,	More than 10% of patients are provided electronic access to

medication lists, and medication allergies).	information within 4 days or its being updated in the EHR.
Use EHR technology to identify patient-specific education resources and provide those to the patient as appropriate.	More than 10% of patients are provided patient-specific education resources.
A physician who receives a patient from another setting of care should perform medication reconciliation.	Medication reconciliation is performed for more than 50% of transitions of care.
The physician 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.	Summary of care record is provided for more than 50% of patient transitions or referrals.
Capability to submit electronic data to immunization registries or immunization information systems and actual submission in accordance with applicable law and practice.	Perform at least one test of EHR'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 physician submits such information have the capacity to receive the information electronically).
Submit electronic syndromic surveillance data to public health agencies.	Perform at least one test of data submission and follow-up submission (where public health agencies can accept electronic data)

COMPUTER PROVIDER ORDER ENTRY (CPOE)

Description: Computer provider order entry (CPOE) allows a physician to electronically enter orders medication, lab services, imaging studies, and other services from a computer or mobile device. CPOE also captures the order and saves it as data in the patient's electronic record.

Objective: Computer provider order entry (CPOE) for medication orders.

Measure: More than 30% of patients with at least one medication in their medication list have at least one medication ordered through CPOE.

Calculation:

Numerator – Number of Patients who have at least one medication order entered using CPOE

Denominator – Number of unique patients with at least one medication in their medication list seen by the physician during the EHR Reporting Period

Result – If the result of the calculation is more than 30%, the physician has met this requirement.

Exclusions and Other Considerations:

1. Physicians who write fewer than 100 prescriptions during the EHR reporting period are excluded from this Objective.
2. This objective is limited to only medication orders.
3. It is only required that the physician enter the order using CPOE. Transmission of the order is not required for Stage 1 meaningful use.
4. The objective is based on unique patients, regardless of how many times an individual patient is seen or how many prescriptions an individual patient receives.

ELECTRONIC PRESCRIBING

Description: Electronic prescribing ("e-prescribing") systems allow physicians to electronically enter and transmit prescriptions. While many physicians use "stand-alone" e-prescribing systems, the capability to e-prescribe is a requirement of certified EHR systems.

Objective: Generate and transmit permissible prescriptions electronically

Measure: More than 40% are transmitted electronically using certified EHR technology.

Calculation:

Numerator – The number of prescriptions generated and transmitted electronically.

Denominator – The total number of prescriptions written for drugs requiring a prescription in order to be dispensed other than controlled substances during the EHR Reporting Period.

Result – The resulting percentage must be more than 40% for a physician to meet this objective.

Exclusions and Other Considerations:

1. Despite recent regulations allowing electronic prescribing of Schedule II drugs, they are not counted in this calculation as "permissible prescriptions."
2. Physician authorization for things other than drugs, such as lab tests and durable medical equipment, is not considered for the purposes of this measure.
3. A prescription only needs to be transmitted electronically to count for this measure. It can be received in any format. For example, some e-prescribing systems can take electronic prescriptions and convert them into faxes.

REPORT ON CLINICAL QUALITY MEASURES

Description: In order to meet this objective, physicians must report clinical quality measures to CMS or to the state, depending on whether they are receiving incentive payments via Medicare or Medi-Cal.

Within the Clinical Quality Measure Objective, three of the quality measures will be "core" measures on which all physicians will have to report. If a provider feels that one of these core measures do not apply to his or her specialty, then that provider may report on one of three "alternate core" quality measures.

In addition, physicians will select three clinical quality measures from a list of 41 options. This will give physicians the flexibility to select measures that are most applicable to their practice specialty.

A table with all of the core, alternate core, and optional measures is below.

Objective: Report clinical quality measures to CMS or states.

Measure: For 2011, provide aggregate numerator and denominator through attestation; for 2012, electronically submit measures.

Calculation: Various:

Core Measures	Description
Adult Weight Screening and Follow-Up.	Percentage of patients aged 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record AND if the most recent BMI is outside parameters, a follow-up plan is documented.
Hypertension: Blood Pressure Measurement.	Percentage of patient visits for patients aged 18 years and older with a diagnosis of hypertension who have been seen for at least 2 office visits, with blood pressure (BP) recorded.
Preventive Care and Screening Measure Pair: a. Tobacco Use Assessment, b. Tobacco Cessation Intervention.	Percentage of patients aged 18 years and older who have been seen for at least 2 office visits who were queried about tobacco use one or more times within 24 months. b. Percentage of patients aged 18 years and older identified as tobacco users within the past 24 months and have been seen for at least 2 office visits, who received cessation intervention.

Alternate Core Measures	Description
Childhood Immunization Status.	Percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertusis (DTaP); three polio (IPV), one measles, mumps and rubella (MMR); two H influenza type B (HiB); three hepatitis B (Hep B); one chicken pox (VZV); four pneumococcal conjugate (PCV); two hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.
Preventive Care and Screening: Influenza Immunization for Patients > 50 Years Old.	Percentage of patients aged 50 years and older who received an influenza immunization during the flu season (September through February).
Weight Assessment and Counseling for Children and Adolescents.	Percentage of patients 2-17 years of age who had an outpatient visit with a Primary Care Physician (PCP) or OB/GYN and who had evidence of BMI percentile documentation, counseling for nutrition and counseling for physical activity during the measurement year.

Optional Measures	Description
Anti-depressant medication management (a) Effective Acute Phase Treatment, (b) Effective Continuation Phase Treatment.	The percentage of patients 18 years of age and older who were diagnosed with a new episode of major depression, treated with antidepressant medication, and who remained on an antidepressant medication treatment.
Appropriate Testing for Children with Pharyngitis.	Percentage of children 2-18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode.
Asthma Assessment.	Percentage of patients aged 5 through 40 years with a diagnosis of asthma and who have been seen for at least 2 office visits, who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms.

Optional Measures	Description
Asthma Pharmacologic Therapy.	Percentage of patients aged 5 through 40 years with a diagnosis of mild, moderate, or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment.
Breast Cancer Screening.	Percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer.
Cervical Cancer Screening.	Percentage of women 21-64 years of age, who received one of more Pap tests to screen for cervical cancer.
Chlamydia Screening for Women.	Percentage of women 15-24 years of age who were identified as sexually active and who had at least one test for Chlamydia during the measurement year.
Controlling High Blood Pressure.	The percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose BP was adequately controlled during the measurement year.
Colorectal Cancer Screening.	Percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer.
Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI).	Percentage of patients aged 18 years and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy.
Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL-Cholesterol.	Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed a lipid-lowering therapy (based on current ACC/AHA guidelines).
Coronary Artery Disease (CAD): Oral Antiplatelet Therapy Prescribed for Patients with CAD.	Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed oral antiplatelet therapy.
Diabetes: Blood Pressure Management.	Percentage of Patients 18-75 years of age with diabetes (type 1 or type 2) who had blood pressure < 140/90mmHg.

Optional Measures	Description
Diabetes: Eye Exam.	Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had a retinal or dilated eye exam or a negative retinal eye exam (no evidence of retinopathy) by an eye care professional.
Diabetes: Foot Exam.	The percentage of patients aged 18-75 years with diabetes (type 1 or type 2) who had a foot exam (visual inspection, sensory exam with monofilament, or pulse exam).
Diabetes: Hemoglobin A1c Control (<8.0%).	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c<8.0%.
Diabetes: Hemoglobin A1c Poor Control.	Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c > 9.0%.
Diabetes: Low Density Lipoprotein (LDL) Management and Control.	Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had LDL-C < 100mg/dL).
Diabetes: Urine Screening.	Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had a nephropathy screening test or evidence of nephropathy.
Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care.	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.
Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy.	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits with 12 months.
Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD).	Percentage of patients aged 18 years and older with a diagnosis of heart failure and LVSD (LVEF < 40%) who were prescribed ACE inhibitor or ARB therapy.

Optional Measures	Description
Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD).	Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD (LVEF < 40%) and who were prescribed beta-blocker therapy.
Pneumonia Vaccination Status for Older Adults.	Percentage of patients 65 years of age or older who have ever received a pneumococcal vaccine.
Heart Failure (HF): Warfarin Therapy Patients with Atrial Fibrillation.	Percentage of all patients aged 18 years and older with a diagnosis of heart failure and paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy.
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement.	The percentage of adolescent and adult patients with a new episode of alcohol and other drug (AOD) dependence who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis and who initiated treatment and who had two or more additional services with an AOD diagnosis within 30 days of the initiation visit.
Ischemic Vascular Disease (IVD): Blood Pressure Management.	Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) from January 1-November 1 of the year prior to the measurement year, or who had a diagnosis ischemic vascular disease (IVD) during the measurement year and whose recent blood pressure is in control (< 140/90mmHg).
Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control.	Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal angioplasty (PTCA) from January 1-November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had a complete lipid profile performed during the measurement year and whose LDL-C<100mg/dL.
Ischemic Vascular Disease (IVD): Use of Aspirin or Another	Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI),

Optional Measures	Description
Antithrombotic.	coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PCTA) FROM January 1-November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and who had documentation of the use of aspirin or another antithrobotic during the measurement year.
Low Back Pain: Use of Imaging Studies.	Percentage of patients with a primary diagnosis of low back pain who did not have an imaging study (plain x-ray, MRI, CT scan) within 28 days of diagnosis.
Oncology Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer.	Percentage of female patients aged 18 years and older with Stage IC through IIIC, ER or PR positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period.
Oncology Colon Cancer: Chemotherapy for Stage III Colon Cancer Patients.	Percentage of patients aged 18 years and older with Stage IIIA through IIIC colon cancer who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy, or have previously received adjuvant chemotherapy within the 12-month reporting period.
Prenatal Care: Anti-D Immune Globulin.	Percentage of D (Rh) negative, unsensitized patients, regardless of age, who gave birth during a 12-month period who received anti-D immune globulin at 26-30 weeks gestation.
Prenatal Care: Screening for Human Immunodeficiency Virus (HIV).	Percentage of patients, regardless of age, who gave birth during a 12-month period who were screened for HIV infection during the first or second prenatal care visit.
Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation.	Percentage of patients aged 18 years and older with a diagnosis of POAG who have been seen for at least two office visits who have an optic nerve head evaluation during one or more office visits within 12 months.
Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients.	Percentage of patients, regardless of age, with a diagnosis of prostate cancer at low risk of recurrence receiving interstitial prostate brachytherapy, OR external bean radiotherapy to the prostate, OR cryotherapy who did not have a bone scan

Optional Measures	Description
	performed at any time since diagnosis of prostate cancer.
Smoking and Tobacco Use Cessation, Medical assistance: a. Advising Smoking and Tobacco Users to Quit, b. Discussing Smoking and Tobacco Use Cessation Medications, c. Discussing Smoking and Tobacco Use Cessation Strategies.	Percentage of patients 18 years of age and older who were current smokers or tobacco users, who were seen by a practitioner during the measurement year and who received advice to quit smoking or tobacco use or whose practitioner recommended or discussed smoking or tobacco use cessation medications, methods, or strategies.
Use of Appropriate Medications for Asthma.	Percentage of patients 5-50 years of age who were identified as having persistent asthma and were appropriately prescribed medication during the measurement year. Report three age stratifications (5-11 years, 12-50 years, and total).

Exclusions and Other Considerations:

1. Physicians accessing Medicare provider incentives will report clinical quality measures to the Federal Centers for Medicare and Medicaid Services (CMS). Physicians in the Medi-Cal Incentive Program will report measures to the State Department of Health Care Services (DHCS).
2. For 2011, physicians will report quality measures using an attestation. For 2012 and later years, CMS will develop an online system for physicians to report.
3. In the attestation, physicians will report the numerator and the denominator for each measure. For example, the denominator could be the total number of patients over the age of 18 seen at least twice. The numerator would be the number of those patients given tobacco cessation information.

CLINICAL DECISION SUPPORT TOOLS

Description: Clinical decision support (CDS) tools prompt physicians regarding up-to-date evidence-based care. CDS uses information about the patient to generate real-time advice for the physician.

Objective: Implement one clinical decision support rule relevant to high clinical priority along with the ability to track compliance with the rule.

Measure: One clinical decision support rule implemented.

Calculation: Not applicable.

Exclusions and Other Considerations:

- The physician selects the CDS tool to implement, based on the practice and specialty needs.

PATIENT COPIES OF HEALTH INFORMATION

Description: The purpose of this objective is to provide patients access to all of their health information in a human readable format. The objective does not define exactly what is included in "health information," but gives several examples. The intent is to provide patients with as much information as possible.

Objective: On request, provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, and medication allergies).

Measure: More than 50% of requesting patients receive electronic copy within 3 business days.

Calculation:

Numerator – The number of patients who request their health information who receive it within three business days.

Denominator – The number of patients seen during the EHR Reporting period who request their health information.

Result – The resulting percentage must be more than 50% for the physician to meet this objective.

Exclusions and Other Considerations:

1. If a physician has no requests from patients for their health information during the reporting period, that physician is excluded from this objective.
2. Physicians are allowed to withhold information that would potentially be harmful to the patient.
3. Physicians are allowed to charge a fee for copying information, per HIPAA regulations.
4. Patients are allowed to choose the format in which they receive their information.
5. Disclosure of the information to a parent, family member, or caretaker is allowed under this objective.

CLINICAL SUMMARIES

Description: The rule defines a clinical summary as:

> "an after-visit summary that provides a patient with relevant and actionable information and instructions containing, but not limited to, the patient name, provider's office contact information, date and location of visit, an updated medication list and summary of current medications, updated vitals, reason(s) for visit, procedures and other instructions based on clinical discussions that took place during the office visit, any updates to a problem list, immunizations or medications administered during visit, summary of topics covered/considered during visit, time and location of next appointment/testing if scheduled, or a recommended appointment time if not scheduled, list of other appointments and testing patient needs to schedule with contact information, recommended patient decision aids, laboratory and other diagnostic test orders, test/laboratory results (if received before 24 hours after visit), and symptoms."

Objective: Provide patients with clinical summaries for each office visit.

Measure: Clinical summaries provided to patients for more than 50% of all office visits within 3 business days

Calculation:

Numerator – The number of patients who are provided a clinical summary of their visit within three business days.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be more than 50% for the physician to meet this objective.

Exclusions and Other Considerations:

1. Physicians are allowed to withhold information that would potentially be harmful to the patient.
2. The clinical summary can be provided in any form – paper copy, CD, USB device, secure email, or through a patient portal.

3. Physicians who have no office visits during the EHR Reporting Period are excluded from this rule.
4. This objective is based on unique patients, regardless of the number of times any individual patient is seen.

DRUG-DRUG AND DRUG-ALLERGY CHECKS

Description: Many EHR systems provide warnings when a prescribed medication may possibly conflict with another medication the patient is currently taking, or may cause an adverse allergic reaction. EHRs certified for meaningful use must contain this capability.

Many EHRs, however, allow physicians to disable drug-drug and drug-allergy checks. This objective requires the physician to enable these checks.

Objective: Implement drug-drug and drug-allergy interaction checks.

Measure: Functionality is enabled for these checks for the entire reporting period.

Calculation: Not applicable.

Exclusions and Other Considerations:

1. Physicians who write fewer than 100 prescriptions during the reporting period are excluded from this objective.
2. This objective does not require a physician to enable drug-formulary checks, although that is a menu item for Stage 1 of meaningful use. It will be required in Stage 2.

PATIENT DEMOGRAPHIC DATA

Description: Patient demographic data includes the patient's sex, race, ethnicity, date of birth, and preferred language. The rule requires that physicians record this data following current federal standards published by the Office of Management and Budget: (http://www.whitehouse.gov/omb/inforeg_statpolicy/#dr).

Objective: Record patient demographics (sex, race, ethnicity, date of birth, and preferred language).

Measure: More than 50% of patients' demographic data recorded as structured data.

Calculation:

Numerator – The number of patients who have all the elements of demographics (or a specific exclusion if the patient declined to provide one or more elements or if recording an element is contrary to state law) recorded as structured data.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be higher than 50% for the physician to meet this objective.

Exclusions and Other Considerations:

1. Physicians are allowed to record that a patient does not wish to disclose demographic data.
2. A physician is only required to record a patient's preferred language. Meaningful use does not require the physician to communicate with the patient in that language.
3. Unless a patient declines to disclose any of the information above, all of the items must be recorded.
4. The calculation is based on unique patients, regardless of the number of times an individual patient is seen.

UP-TO-DATE PROBLEM LIST

Description: A list of current and active diagnoses, sometimes known as a "problem list," is a list within a patient's electronic record of current health problems.

Objective: Maintain up-to-date problem list of current and active diagnoses.

Measure: More than 80% of patients have at least one entry recorded as structured data.

Calculation:

Numerator – The number of unique patients seen by the physician who have at least one entry or an indication that no problems are known for the patient recorded as structured data.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be more than 80% in order for a physician to meet this objective.

Exclusions and Other Considerations:

1. The term "up-to-date" means the most recent diagnosis known to the physician.
2. The rule does not specify a standard that a physician must use in order to record a patient's diagnosis (i.e., the rule does not specify ICD-9-CM-CM or SNOMED CT®).
3. A physician is allowed to record that a patient has no current diagnoses.
4. The calculation is based on unique patients seen by the physician, regardless of the number of times any individual patient is seen.
5. The list can include diagnoses from other physicians.

ACTIVE MEDICATION LIST

Description: An active medication list is defined as a list of medications that a patient is currently taken. The list includes both prescription medications and, to the extent they are known, over-the-counter drugs.

In an EHR system, a medication list is recorded as "structured" data. That is, the system not only records the word "aspirin," it recognizes that aspirin is a medication. It is important that the data be structured, since an active medication list allows drug-drug interaction checks to function properly.

Objective: Maintain active medication list.

Measure: More than 80% of patients have at least one entry recorded as structured data.

Calculation:

Numerator – The number of patients who have a medication (or an indication that the patient is not currently taking any medications) recorded as structured data.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The percentage must be greater than 80% for the physician to meet this objective.

Exclusions and Other Considerations:

1. A physician is allowed to record that a patient has no current medications.
2. The calculation is based on unique patients seen by the physician, regardless of the number of times any individual patient is seen, or the number of medications any individual patient has.
3. This rule does not override a patient's right to privacy. A physician will not be held responsible for recording medications that the patient does not disclose.

ACTIVE MEDICATION ALLERGY LIST

Description: An active medication allergy list records all known medication allergies. It can be constructed either through patient disclosure, or through the regular course of treatment.

Certified EHR systems will record medication allergies as "structured" data. That is, the EHR will be able to compare a prescribed medication to the list of medication allergies and alert providers to possible conflicts.

Objective: Maintain active medication allergy list.

Measure: More than 80% of patients have at least one entry recorded as structured data.

Calculation:

Numerator – The number of unique patients who have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be higher than 80% for the physician to meet this objective.

Exclusions and Other Considerations:

1. A physician is allowed to record that a patient has no known medication allergies.
2. The calculation is based on unique patients seen by the physician, regardless of the number of times any individual patient is seen, or the number of medication allergies any individual patient has.

CHANGES IN VITAL SIGNS

Description: This objective would require a physician to record a patient's height, weight, and blood pressure. This data is essential for tracking potentially harmful changes in a patient's health.

Certified EHR technology will be able to calculate a patient's body mass index (BMI) or growth chart (for children and adolescents) based on the entered data. It is not necessary for the physician to separately enter this data.

Objective: Record vital signs and chart changes (height, weight, blood pressure, body-mass index, growth charts for children).

Measure: More than 50% of patients 2 years of age or older have height, weight, and blood pressure recorded as structured data.

Calculation:

Numerator – The number of patients who have at least one entry of their height, weight, and blood pressure recorded as structured data.

Denominator – The number of unique patients age 2 or over seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be higher than 50% for the physician to meet this objective.

Exclusions and Other Considerations:

1. A physician who believes that recording a patient's height, weight, and blood pressure is not relevant to their scope of practice would be able to attest to that fact.
2. Physicians who do not see patients over the age of 2 are excluded from this requirement.
3. The vital signs need not be updated at every patient visit.
4. A patient's height can be self-reported.

SMOKING STATUS

Description: This objective and measure would simply require a physician to record whether a patient smokes. This objective does not include any requirement for a physician to offer tobacco cessation, although tobacco cessation is a required clinical quality measure.

Although opinions vary as to the age at which physicians should begin recording this data, the Office of the National Coordinator is using 13 years old to create consistency of data with the National Health Interview Survey.

Objective: Record smoking status for patients 13 years of age or older.

Measure: More than 50% of patients 13 years of age or older have smoking status recorded as structured data.

Calculation:

Numerator – The number of patients over the age of 13 with smoking status recorded as structured data.

Denominator – The number of unique patients over the age of 13 seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be more than 50% for the physician to meet this objective.

Exclusions and Other Considerations:

1. This objective is specific to smoking. Other types of tobacco use need not be recorded. Similarly, exposure to second-hand smoke need not be recorded.
2. Smoking status does not need to be updated every time the physician sees the patient.
3. A physician who does not see patients over the age of 13 is excluded from this measure.
4. A physician need not receive this information directly from the patient. Physicians who do not see the patient, for example radiologists, can receive this information from a referring physician.
5. This measure is based on unique patients, regardless of the number of times any individual patient is seen.

INFORMATION EXCHANGE

Description: Perhaps the most compelling argument for EHR adoption is the ability to exchange data with other providers. Through EHRs, physicians can send and receive information about their patients to and from hospitals, labs, other physicians, and providers such as home health aides. Through this exchange, relevant clinical information will always be available at the point of care.

Although this objective does not require the presence of a health information exchange (HIE), it is the most common form of exchanging clinical data. An HIE is a secure internet portal established soley for the purpose of sending clinical data.

Objective: Implement capability to electronically exchange key clinical information (for example, problem list, medication list, medication allergies, and diagnostic test results) among providers and patient-authorized entities.

Measure: Perform at least one test of EHR's capacity to electronically exchange information.

Calculation: Not applicable.

Exclusions and Other Considerations:

1. A physician is allowed to perform the exchange test using "dummy" clinical data (that is, data on a fictional patient).
2. "Patient-authorized entities," as used in this objective, includes any entity for which the patient has given specific authorization to receive their data. Examples could include other physicians, hospitals, or health plans that cover the patient.
3. The test can happen before the beginning of the EHR Reporting Period.

PRIVACY AND SECURITY

Description: Perhaps the top concern for both physicians and patients in the transition to EHR is the privacy of sensitive clinical information. Physicians can protect the privacy of information through a variety of means. Some protections are digital (anti-virus software), and others are physical (storing servers in locked rooms). This objective requires the physician to assess the security of their EHR system.

Objective: Implement systems to protect privacy and security of patient data in the EHR.

Measure: Conduct or review a security risk analysis, implement security updates as necessary, and correct identified security deficiencies.

Calculation: Not applicable.

Exclusions and Other Considerations:

1. Security updates can take many forms, including updating software, improving physical security, or making changes to practice workflow.
2. Nothing in this rule changes physicians' existing obligations under HIPAA and CMIA.

DRUG-FORMULARY CHECKS

Description: Drug-formulary checks allow physicians to check a patient's health plan formulary for coverage of a medication. EHR systems allow physicians to disable these checks. This objective, on the other hand, requires them to be enabled.

This objective is an optional "menu set" item for Stage 1, but will be required in Stage 2 of meaningful use.

Objective: Implement drug-formulary checks.

Measure: Drug formulary check system is implemented and has access to at least one internal or external drug formulary for the entire reporting period.

Calculation: Not applicable.

Exclusions and Other Considerations:

1. Physicians who write fewer than 100 prescriptions during the reporting period are excluded from this objective.
2. A physician only needs one formulary that can be queried.

CLINICAL LAB TEST RESULTS

Description: Certified EHR systems will have the ability to record results of lab tests, and then transmit them either to other practitioners or to patients. This objective does not cover all lab tests, only those whose results are expressed in a positive/negative format, or as a number.

For Stage 1 of meaningful use, this is an optional, "menu set" objective.

Objective: Incorporate clinical laboratory test results into EHRs as structured data.

Measure: More than 40% of clinical laboratory test results whose results are in positive/negative or numerical format are incorporated into EHRs as structured data.

Calculation:

Numerator – The number of lab test results whose results are expressed in a positive/negative format or as a number which are incorporated as structured data.

Denominator – The total number of lab tests ordered by the physician whose results are expressed in a positive/negative format or as a number.

Result – If the result of the calculation is more than 40%, the physician has met this requirement.

Exclusions and Other Considerations:

1. This objective only requires the physician to enter the result into the EHR as structured data. The information can be received from the lab in any format (fax, telephone, regular mail, etc.).
2. A physician who does not order any lab tests during the EHR Reporting Period would be excluded from this requirement.

LISTS OF PATIENTS WITH A SPECIFIC CONDITION

Description: One of the capabilities that a Certified EHR system must contain is the ability to generate lists of patients based on diagnosis. For example, a physician could generate a list of all patients with Diabetes.

Lists such as this could be useful for researching trends, reaching out to groups of patients with similar conditions, or other quality improvement purposes.

Objective: Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach.

Measure: Generate at least one listing of patients with a specific condition.

Calculation: Not Applicable

Exclusions and Other Considerations:

1. The physician will choose which specific condition will be covered by the list.
2. The list does not need to be sent or transmitted; it only needs to be generated.

REMINDERS SENT TO PATIENTS

Description: Certified EHR systems will have the ability to send patients appropriate reminders, such as that it is time for an office visit or to renew a prescription. These reminders can be powerful tools for helping patients to take responsibility for their own care.

For the purposes of this objective, the reminder can be delivered either electronically or by hard copy, depending on the patient's preference.

Objective: Send reminders to patients (per patient preference) for preventive and follow-up care.

Measure: More than 20% of patients 65 years of age or older or 5 years of age or younger are sent appropriate reminders.

Calculation:

Numerator – The number of patients who were sent an appropriate reminder.

Denominator – Number of unique patients 65 years or older or 5 years old or younger.

Result – The resulting percentage must be more than 20% for the physician to meet this objective.

Exclusions and Other Considerations:

1. If a physician has no patients over the age of 65 or under the age of 5, this objective would not apply to that physician.
2. The denominator for the calculation above includes all patients in the appropriate age range, whether they are seen during the EHR Reporting Period or not.

PATIENT COPIES OF HEALTH INFORMATION

Description: One of the advantages of EHR adoption is the ability to engage patients in their own care. Certified EHR systems must include a "patient portal." Through this portal, physicians will be able to give patients access to information about their diagnoses, lab results, and other clinical data online.

Objective: Provide patients with timely electronic access to their health information (including laboratory results, problem list, medication lists, and medication allergies).

Measure: More than 10% of patients are provided electronic access to information within 4 days or its being updated in the EHR, subject to the physician's discretion to withhold certain information.

Calculation:

Numerator – The number of patients who have timely (available to the patient within four business days of being updated in the EHR) electronic access to their health information online.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be more than 10% for the physician to meet this objective.

Exclusions and Other Considerations:

1. Physicians are allowed to withhold information that would potentially be harmful to the patient.
2. The objective is based on the availability of the information, regardless of whether the patient chooses to access it.

EDUCATION RESOURCES

Description: Most EHR systems contain patient education resources, such as information about nutrition, controlling hypertension, or quitting smoking. This objective encourages physicians to provide this information to their patients, at the physician's discretion.

Objective: Use EHR technology to identify patient-specific education resources and provide those to the patient as appropriate.

Measure: More than 10% of patients are provided patient-specific education resources.

Calculation:

Numerator – The number of patients who are provided patient-specific educational resources.

Denominator – The number of unique patients seen by the physician during the EHR Reporting Period.

Result – The resulting percentage must be more than 10% for a physician to meet this objective.

Exclusions and Other Considerations:

1. The physician has complete discretion in deciding whether any given educational resource is appropriate for a patient.
2. This objective is based on unique patients, regardless of how many times an individual patient is seen.

MEDICATION RECONCILIATION

Description: The rule defines medication reconciliation as:

> "the process of identifying the most accurate list of all medications that the patient is taking, including name, dosage, frequency and route, by comparing the medical record to an external list of medications obtained from a patient, hospital or other provider."

Reconciliation is most often performed when a patient transitions from one care setting to another, such as being discharged from the hospital.

Objective: A physician who receives a patient from another setting of care should perform medication reconciliation.

Measure: Medication reconciliation is performed for more than 50% of transitions of care.

Calculation:

Numerator – Number of Patients for whom medication reconciliation was performed.

Denominator – Number of transitions of care during the EHR Reporting Period for which the physician was the receiving party.

Result – If the result of the calculation is more than 50%, the physician has met this requirement.

Exclusions and Other Considerations:

1. Reconciliation only needs to be performed when a physician receives a patient from another care setting, not when sending the patient to another setting.
2. A physician who does not receive any patients from another care setting during the EHR Reporting Period would be excluded from this objective.

SUMMARY CARE RECORD

Description: for this objective, a physician would send (in any format) a summary care record when transitioning a patient to another care setting. A certified EHR system will be able to generate this record using entered patient information.

This purpose of this objective is to ensure that all of a patient's health information follows them as they transition from one care setting to another. This can improve patient safety and reduce unnecessary treatments and testing.

Objective: The physician 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.

Measure: Summary of care record is provided for more than 50% of patient transitions or referrals.

Calculation:

Numerator – The number of referrals or transitions of care for which a summary care record is provided.

Denominator – The number of transitions or referrals during the EHR Reporting Period for which the physician was the transferring or referring partner.

Result – The resulting percentage must be more than 50% for the physician to meet this objective.

Exclusions and Other Considerations:

1. The objective does not specify how the summary care record is presented to the next provider.
2. Unlike medication reconciliation, this objective is performed by the physician transferring the patient, not the one receiving the patient.
3. A physician who does not transfer or refer any patients during the EHR Reporting Period would be excluded from this objective.

IMMUNIZATION REGISTRIES

Description: EHRs can automate the process of reporting administered immunizations to local immunization registries. Particularly in areas where there are functioning health information exchanges, EHRs can send this information electronically.

Objective: Capability to submit electronic data to immunization registries or immunization information systems and actual submission in accordance with applicable law and practice.

Measure: Perform at least one test of EHR'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 physician submits such information have the capacity to receive the information electronically).

Calculation: Not applicable.

Exclusions and Other Considerations:

1. Physicians are allowed to report that their local immunization registry does not accept electronic submissions.
2. A physician who does not administer any immunizations during the EHR Reporting Period would be excluded from this objective.
3. Physicians are allowed to use "dummy" data (information on a fictional patient) for this test.

SYNDROMIC SURVEILLANCE

Description: According to the Center for Disease Control (CDC), the term "syndromic surveillance" applies to surveillance using health-related data that precede diagnosis and signal a sufficient probability of a case or an outbreak to warrant further public health response.

EHRs can enable physicians to report this data to local public health agencies and enable earlier public health response to potential outbreaks.

Objective: Submit electronic syndromic surveillance data to public health agencies.

Measure: Perform at least one test of data submission and follow-up submission (where public health agencies can accept electronic data)

Calculation: Not applicable.

Exclusions and Other Considerations:

1. Physicians are allowed to report that their local public health agency does not accept electronic submissions.
2. A physician who does not collect any reportable syndromic surveillance data during the EHR Reporting Period would be excluded from this objective.
3. Physicians are allowed to use "dummy" data (information on a fictional patient) for this test.