

Guide on Meaningful Use and its Impact on Quality Improvement Initiatives

What is Meaningful Use?

Meaningful use describes the use of health information technology (HIT) that leads to improvements in healthcare and furthers the goals of information exchange among health care professionals.

The Center for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology (ONC) issued two regulations in July 2010 that lay a foundation for improving quality, efficiency and safety through meaningful use of certified electronic health record (EHR) technology. The regulations will help implement the EHR incentive programs enacted under the American Recovery and Reinvestment Act of 2009 (federal government's economic stimulus package).

The CMS regulation provides incentive payments to eligible professionals and eligible hospitals participating in Medicare and Medicaid programs that adopt meaningful use of certified electronic health record technology. Specific criteria must be met before a provider is eligible for stimulus payments. The two most important criteria require that (1) the EHR must be a "qualified" EHR and (2) the provider must demonstrate "meaningful use." As much as \$27 billion may be expended in incentive payments over ten years. Eligible professionals may receive as much as \$44,000 under Medicare and \$63,750 under Medicaid, and hospitals may receive millions of dollars for implementation and meaningful use of certified EHRs under both Medicare and Medicaid. The regulations issued in July 2010 apply to the first two years, 2011 and 2012, and subsequent rules will govern later phases.

Why is Meaningful Use important?

The nation's healthcare system is undergoing a transformation in an effort to improve quality, safety and efficiency of care, from the upgrade to ICD-10 to information exchanges of Electronic Health Record (EHR) technology. To help facilitate this vision, the Health Information Technology for Economic and Clinical Health Act, or the "HITECH Act" established programs under Medicare and Medicaid to provide incentive payments for the "meaningful use" of certified EHR technology. The Medicare and Medicaid EHR incentive programs will provide incentive payments to eligible professionals and eligible hospitals as they adopt, implement, upgrade or demonstrate meaningful use of certified EHR technology. The programs begin in 2011. These incentive programs are designed to support providers in this period of Health IT transition and instill the use of EHRs in meaningful ways to help our nation to improve the quality, safety and efficiency of patient health care. NOTE: This is a new program, and it is separate from other active Centers for Medicare & Medicaid Services (CMS) incentive programs, such as Physicians Quality Reporting Initiative (PQRI), Reporting Hospital Quality Data for Annual Payment Update (RHQDAPU) and e-Prescribing. (Medicare and Medicaid EHR Incentive Programs, <http://www.cms.gov/EHRIncentivePrograms/>)

Why does my HDSP program need to know about Meaningful Use?

Many of the HDSP programs are actively involved in various quality improvement initiatives in their state, addressing heart disease, stroke, or their risk factors. Because the CMS program will be designed initially to offer incentives to those providers and hospitals able to meet specific criteria, outlined below, it is in the best interest of any of the providers' and hospitals' partners to align their QI initiatives with the measures outlined in the CMS regulations.

What are the key elements of Meaningful Use?

There are 3 components of Meaningful Use –

1. Use a certified EHR in a meaningful manner
2. Use a certified EHR to exchange health information
3. Use a certified EHR to report on clinical quality measures

There are measures for each of these 3 components.

The Meaningful Use Final Rule states that in Stage 1 (2011-2012):

- Eligible professionals must report on 20 of 25 criteria (Core Set and Menu Set)
- Eligible hospitals must report on 19 of 24 criteria (Core Set and Menu Set)

Providers and hospitals must choose at least one of the population and public health measures to demonstrate as part of the menu set (* in table below). These criteria address the first two Meaningful Use components above.

Eligible professionals are also required to submit 6 Clinical Quality Measures (via attestation in 2011, via e-submission in 2012). Eligible hospitals are required to submit clinical quality measures as well (it is unclear how many of the 15 are required). These measures address the third component listed above.

Meaningful Use Criteria

Core Set Criteria	
Criteria	Metric
Record patient demographics - sex, race, ethnicity, date of birth, preferred language, and in the case of hospitals, date and preliminary cause of death in the event of mortality.	More than 50% of patients' demographic data must be 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 must have height, weight and blood pressure recorded as structured data.
Maintain up-to-date problem list of current and active diagnoses.	More than 80% of patients must have at least one entry recorded as structured data.
Maintain an active medication list.	More than 80% of patients must have at least one entry recorded as structured data.
Maintain an active medication allergy list.	More than 80% of patients have at least one entry recorded as structured data

Record smoking status for patients 13 and older.	More than 50% if patients age 13 or older have smoking status recorded as structured data
For professionals, provide patients with clinical summaries for each office visit. For hospitals, provide an electronic copy of hospital discharge instructions upon request.	Clinical summaries provided to patients for more than 50% of all visits within 3 business days. More than 50% of all patients who are discharged from an inpatient or ED of a hospital who request an electronic copy of their discharge instructions must be provided with it
Upon request, provide patients with an electronic copy of their health information including diagnostic test results, problem list, medication list, medication allergies, and for hospitals discharge summary and procedures.	More than 50% of requesting patients must receive an electronic copy within 3 business days
Generate and transmit permissible prescriptions electronically (does <u>not</u> apply to hospitals).	More than 40% must be transmitted electronically using certified EHR technology
Computerized Provider Order Entry for Medication Orders.	More than 30% of patients with at least one medication in their medication list must have at least one medication ordered through CPOE
Implement drug-drug and drug-allergy interaction checks.	Functionality must be enabled for these checks for the entire reporting period
Implement capability to electronically exchange key clinical information among providers and patient-authorized entities.	Must perform at least one test of the EHR's capacity to electronically exchange information
Implement one clinical decision support rule and track compliance with that rule.	One rule must be implemented
Implement systems to protect privacy and security of patient data in the EHR.	Must conduct or review a security risk analysis, implement security updates as necessary and correct identified security deficiencies
Report clinical quality measures to CMS or states.	For 2011, provide aggregate numerator and denominator through attestation. For 2012, electronically submit measures
Menu Set Criteria	
Implement drug formulary checks.	Drug formulary check system must be implemented and access at least one internal or external drug formulary during the reporting period
Incorporate clinical laboratory test results into EHRs as structured data.	More than 40% of clinical laboratory test results are in positive/negative or numerical format and are incorporated into EHRs as structured data
Generate lists of patients by specific conditions for use for quality improvement, reduction of disparities, research, or outreach.	Must generate one listing of patients with a specific condition
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
Perform Medication reconciliation between care	Medication reconciliation must be performed for

settings.	more than 50% of transitions of care.
Provide summary of care record for patients referred or transitioned to another provider or setting.	Summary of care record must be provided for more than 50% of patient transitions or referrals
*Submission of electronic immunization data to immunization registries or immunization information systems.	Must perform at least one test of data submission and follow-up submission, where registries can accept electronic submissions
*Submission of electronic syndromic surveillance data to public health agencies.	Must perform at least one test of data submission and follow up submission, where public health agencies can accept electronic data
a. For hospitals - record advanced directives for patients 65 years or older. b. For professionals - Send reminders to patients (per patient preference) for preventative and follow-up care.	a. More than 50% of patients aged 65 or older must have an indication of an advanced directive status recorded. b. More than 20% of patients aged 65 or older or age 5 or younger must be sent appropriate reminders.
a. *For hospitals - submission of electronic data on reportable laboratory results to public health agencies. b. For professionals - Provide patients with timely electronic access to their health information (including laboratory results, problem list, medication list, medication allergies).	a. Perform at least one test of data submission and follow up submission (where public health agencies can accept electronic data) b. More than 10% of patients must be provided with electronic access to information within 4 days of its being updated in the EHR.

Clinical Quality Measures – Eligible Providers	
3 Core - Required	<ul style="list-style-type: none"> • Blood pressure measurement • Tobacco preventive care and screening • Adult weight screening and follow-up
OR 3 Alternate Core	<ul style="list-style-type: none"> • Weight assessment/counseling for children and adolescents • Preventive care – influenza immunization for 50+ • Childhood immunization status
PLUS 3 of 38 optional measures	<p>Those that relate to HDSP include:</p> <ol style="list-style-type: none"> 1. Diabetes: LDL Management and Control 2. Diabetes: BP Management 3. HF: ACE Inhibitor or ARB Therapy for LV Systolic Dysfunction 4. CAD: Beta Blocker Therapy for CAD Patients with Prior MI 5. CAD: Oral Antiplatelet Therapy Prescribed for Patients with CAD 6. HF: Beta Blocker Therapy for LV Systolic Dysfunction 7. CAD: Drug Therapy for Lowering LDL 8. HF: Warfarin Therapy Patients with AFib 9. Ischemic Vascular Disease: BP Management 10. Ischemic Vascular Disease: Use of Aspirin or Another Antithrombotic 11. Hypertension: BP Measurement 12. Controlling HBP 13. Ischemic Vascular Disease: Complete Lipid Panel and LDL Control

Clinical Quality Measures – Eligible Hospitals	
15 of 15 required measures	<p>Those that relate to HDSP include:</p> <ol style="list-style-type: none"> 1. Ischemic Stroke: discharge on antithrombotics 2. Ischemic Stroke: anticoagulation for AFib/flutter 3. Ischemic Stroke: Thrombolytic therapy for patients arriving within 2 hours of symptom onset 4. Ischemic or hemorrhagic stroke: Antithrombotic therapy by day 2 5. Ischemic Stroke: discharge on statins 6. Ischemic or hemorrhagic stroke: stroke education 7. Ischemic or hemorrhagic stroke: rehabilitation assessment

What is the process for how EHRs become certified?

At the same time that the meaningful use regulations were released, ONC also released its final rule for standards and certification criteria for of EHRs. The ONC rule establishes the required capabilities and related standards and implementation specifications that Certified EHR Technology will need to include to, at a minimum, support the achievement of meaningful use Stage 1 by eligible health care providers under the Medicare and Medicaid EHR Incentive Program regulations.

Both the Medicare and Medicaid EHR incentive programs include a requirement related to certified EHR technology. Under the Medicare EHR incentive program, eligible health care providers may receive incentive payments if they adopt and meaningfully use certified EHR technology (Complete EHR or EHR Modules that have been certified by an Office of the National Coordinator for Health Information Technology-Authorized Testing and Certification Body (ONC-ATCB)). Under the Medicaid EHR incentive program, eligible health care providers may first adopt, implement, or upgrade to certified EHR technology in their first year of the program and receive an incentive payment before having to meaningfully use certified EHR technology. The standards and certification criteria final rule specifies the necessary technological capabilities EHR technology will need to include, for the EHR technology to be certified by an ONC-ATCB. Additionally, it specifies how eligible health care providers will need to use the certified EHR technology to meet applicable meaningful use requirements. For more technical information about the certification and standardization criteria, see the ONC website.

http://healthit.hhs.gov/portal/server.pt?CommunityID=3002&spaceID=48&parentname=&control=SetCommunity&parentid=&in_hi_userid=11673&PageID=0&space=CommunityPage

What resources are available to help providers and hospitals become meaningful users of electronic health data?

There are several resources available. This is not an exhaustive list.

Regional Extension Centers

ONC has funded 60 Regional Extension Centers (RECs) in virtually every geographic region of the United States that will support and serve health care providers to help them quickly become adept and meaningful users of EHRs. RECs are designed to make sure that primary care clinicians get the help they need to use EHRs.

A full list of these centers is here:

http://healthit.hhs.gov/portal/server.pt?open=512&objID=1495&parentname=CommunityPage&parentid=58&mode=2&in_hi_userid=11113&cached=true

State Health Information Exchange Cooperative Agreement Program

Health information exchanges (HIE) are a group of organizations with a business stake in improving the quality, safety and efficiency of healthcare delivery.

The Nationwide Health Information Network (NHIN) is being developed to provide a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare. <http://www.hhs.gov/healthit/healthnetwork/background/>

The State HIE Cooperative Agreement Program, funded by ONC, funds states' efforts to rapidly build capacity for exchanging health information across the health care system both within and across states. Awardees are responsible for increasing connectivity and enabling patient-centric information flow to improve the quality and efficiency of care. Key to this is the continual evolution and advancement of necessary governance, policies, technical services, business operations, and financing mechanisms for HIE over each state, territory, and State Designated Entities' four-year performance period. This program is building on existing efforts to advance regional and state-level health information exchange while moving toward nationwide interoperability. In total, 56 states, eligible territories, and qualified State Designated Entities (SDE) received awards.

For a complete listing of awardees, click here:

<http://healthit.hhs.gov/portal/server.pt?open=512&objID=1488&mode=2>

Beacon Communities

The Beacon Community Cooperative Agreement Program, funded in May 2010 through the HITECH Act, provides communities with funding to build and strengthen their health information technology (health IT) infrastructure and exchange capabilities. These communities will demonstrate the vision of a future where hospitals, clinicians, and patients are meaningful users of health IT, and together the community achieves measurable improvements in health care quality, safety, efficiency, and population health.

Communities funded through the Beacon Community Program will be expected to build on an existing infrastructure of interoperable health IT and standards-based information exchange to advance specific health improvement goals declared by each community. Beacon Communities will be required to coordinate with the Regional Extension Center Program and State Health Information Exchange Program, including the Health Information Technology Research Center (HITRC), to develop and disseminate best practices for adoption and meaningful use of electronic health records and to facilitate national goals for widespread use of health IT. Beacon Communities are expected to maximize their efforts by leveraging other existing federal programs and resources that are working to promote health information exchange at the community level, including:

- Department of Defense and the Department of Veterans Affairs development of a Virtual Lifetime Electronic Health Record (VLER) for all active duty, Guard and Reserve, retired military personnel, and eligible separated Veterans.
- Health Resources and Services Administration (HRSA) programs at federally qualified health centers (FQHCs) and the Health Center Controlled Networks (HCCNs) for the adoption of certified electronic health records and exchange of health information.
- Department of Agriculture and Department of Commerce efforts to extend broadband infrastructure.

A full list of the Beacon communities is here:

<http://healthit.hhs.gov/portal/server.pt?open=512&objID=1805&parentname=CommunityPage&parentid=2&mode=2&cached=true>

Where can I find additional information about Meaningful Use and EHR Certification?

Center for Medicare and Medicaid Services EHR Incentive Program and Meaningful Use

https://www.cms.gov/EHRIncentivePrograms/35_Meaningful_Use.asp#TopOfPage

NEJM article entitled **The "Meaningful Use" Regulation for Electronic Health Records** by *David Blumenthal, M.D., M.P.P., and Marilyn Tavenner, R.N., M.H.A.* Published at www.nejm.org July 13, 2010 (10.1056/NEJMp1006114).

Federal Register. Vol. 75, No. 144. July 28, 2010. Rules and Regulations.

<http://frwebgate2.access.gpo.gov/cgi-bin/PDFgate.cgi?WAISdocID=icr7Bx/9/2/0&WAISection=retrieve>

Additional HITECH programs are described here:

http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov_hitech_programs/1487