Introduction

On October 6, 2015, the Centers for Medicare and Medicaid (CMS) published its final rule on Stage 3 of the Meaningful Use Requirements for the Electronic Health Record Incentive Program.[1] This program adjusts payments to Medicare and Medicaid providers for implementing and “meaningfully using” (or not) interoperable electronic health records (EHR) systems. These standards are being implemented in three stages to gradually move providers toward the desired end point: to “provide efficiencies in administrative processes which support clinical effectiveness, leveraging automated patient safety checks, supporting clinical decision making, enabling wider access to health information for patients, and allowing for dynamic communication between providers.”

At each stage, CMS has chosen various metrics—of both quality and health information technology (HIT) functionality—to evaluate a provider’s performance in caring for their patients. In order to attest to each stage of the incentive program, providers must track and report their performance on such metrics. The first meaningful use requirements (Stage 1) were outlined in 2010 and focused on capturing patient data, such as demographic information and family medical history. Stage 2 began in 2014 and focused on the exchange of information between providers and patients as well as providers within a given practice in order to improve treatment adherence and care coordination. Beginning in 2016, penalties will be issued to providers that fail to meet the program’s requirements in the preceding year.[2] Stage 3 objectives are focused on improving the interoperability of EHR systems in different practices.

Modified Stage 2 and the 2015-2017 Transition Period

The new rule combines stages 1 and 2 into a “Modified Stage 2,” which will allow providers to meet a single set of objectives for up to three years (2015-2017), rather than having to meet the objectives of both Stage 1 and 2 separately. This is intended to reduce the reporting burdens and allow providers to move more quickly through the stages. Providers will be required to at least attest to the Modified Stage 2 beginning in 2015, with limited exceptions. This should help ensure that all providers will be ready and able to transition to Stage 3, and thus possess the same capabilities, in 2018—a necessary achievement in order for interoperability to be successful.

Calendar year reporting will begin in 2015, as opposed to fiscal year reporting, as has been the case. Providers still only need to attest to meaningful use for any continuous 90-day period through 2015, but beginning in 2016 and in 2017, they must attest for the entire year.[3] Full year reporting will be required of all providers beyond that—this is critical to meeting the goals of the program: the more data collected, the more useful it is for comprehensive analysis and care improvement.

Beginning in 2015, measures that are redundant, duplicative, or considered to be “topped out” will be removed; this will be an ongoing process to reduce the burdensome reporting requirements and to allow for the most
appropriate use of funds.[4] Topped out measures do not provide an opportunity to differentiate performance among providers and presumably no longer need to be incentivized. Certain other measures will be selected as “high-priority,” particularly for use in the Clinical Decision Support objective.

**OBJECTIVES AND CORRESPONDING MEASURES FOR MODIFIED STAGE 2: 2015-2017**

The following objectives and corresponding measures will be used for evaluating whether or not a provider has met the necessary requirements for attestation to Modified Stage 2 in 2015, 2016, and 2017:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure</th>
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| 1. Protect Patient Health Information                                     | a. Conduct or review a security risk analysis  
   b. Establish a risk management process and correct any problems or deficiencies identified |
| 2. Use Clinical Decision Support to Improve Performance on High-Priority Health Conditions | a. Implement 5 clinical decision support interventions related to 4 or more clinical quality measures at a relevant point in patient care  
   b. Enable functionality for drug-drug and drug-allergy interaction checks |
| CPOE must be used for:                                                    | a. More than 60 percent of medication orders  
   b. More than 30 percent of the laboratory orders  
   c. More than 30 percent of radiology orders |
| 3. Use Computerized Provider Order Entry (CPOE) for Medication, Laboratory, and Radiology Orders | a. For Providers: more than 50 percent of prescriptions  
   b. For Hospitals/CAHs: More than 10 percent of hospital discharge medication orders |
| 4. Generate and Transmit Permissible Prescriptions Electronically (eRx)     | a. The referring provider must provide and electronically transmit such summaries for more than 10 percent of transitions and referrals |
| 5. Provide Patients with a Summary of Care Record for Each Transition of Care or Referral and Electronically Transmit Such Summary | a. For providers: patient specific education resources must be provided to more than 10 percent of all unique patients  
   b. For hospitals/CAHs: patient specific education resources must be provided to more than 10 percent of all unique patients admitted to the hospital’s inpatient or emergency department |
| 6. Use Clinically Relevant Information from Certified Electronic Health Record Technology (CEHRT) to Identify Patient-specific Education Resources and Provide those Resources to the Patient | a. Medication reconciliation must be performed for more than 50 percent of patients transitioned into the care of the provider or hospital’s inpatient or emergency department |
| 7. Perform Medication Reconciliation for any Patient Received from Another Setting of Care | a. More than 50 percent of all unique patients must be provided timely access to view online, download, and transmit to a third party their health information  
   i. In 2015 and 2016, at least one patient must use such functionality  
   ii. In 2017, more than 5 percent of patients must use such functionality |
| 8. Provide Patients the Ability to View Online, Download, and Transmit their Health Information within 4 Business Days of the Information Being Available to the Provider | a. More than 50 percent of all unique patients must be provided timely access to view online, download, and transmit to a third party their health information  
   i. In 2015 and 2016, at least one patient must use such functionality  
   ii. In 2017, more than 5 percent of patients must use such functionality |
9. Use Secure Electronic Messaging to Communicate with Patients on Relevant Health Information

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<td>a.</td>
<td>In 2015, patients must have the capability to send and receive a secure electronic message with their provider</td>
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<td>b.</td>
<td>In 2016, at least one patient must send or receive a message</td>
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<tr>
<td>c.</td>
<td>In 2017, more than 5 percent of patients must send or receive a message</td>
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10. Provider or Hospital Actively Engages with a Public Health Agency to Submit Electronic Public Health Data from CEHRT

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<td>Provider must submit the following data to public health agencies:</td>
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<tr>
<td>a.</td>
<td>Immunization data</td>
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<tr>
<td>b.</td>
<td>Syndromic surveillance data</td>
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<tr>
<td>c.</td>
<td>Specialized registry reporting</td>
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<tr>
<td>d.</td>
<td>Electronic reportable laboratory results</td>
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Stage 3

Stage 3 is intended to bring about advancements in care delivery by requiring more advanced EHR functionality and standards for structuring data, increasing thresholds compared to Stage 1 and 2 measures, and requiring more coordinated care and patient engagement. All providers will be required to meet the Stage 3 objectives in 2018 for the entire calendar year, but providers will be encouraged and able to begin attesting to Stage 3 in 2017.

OBJECTIVES FOR STAGE 3: 2017 AND BEYOND

The following objectives and corresponding measures will be used for evaluating whether or not a provider has met the necessary requirements for attestation to Stage 3 in 2017 and subsequent years. All CEHRT must be able to perform the necessary functions to meet these objectives, including recording and reporting all necessary data electronically.

1. Protect Electronic Patient Health Information (ePHI) Created or Maintained by the CEHRT through the Implementation of Appropriate Technical, Administrative, and Physical Safeguards

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<tr>
<td>a.</td>
<td>A security risk analysis must be conducted, including addressing the security (including encryption) of data created or maintained by the CEHRT</td>
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<td>b.</td>
<td>Security updates must be implemented as necessary</td>
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<td>c.</td>
<td>Identified security deficiencies must be corrected as part of the provider’s risk management process</td>
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2. Electronic Prescribing: Generate and Transmit Permissible Prescriptions Electronically (eRx)

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<tr>
<td>a.</td>
<td>For Providers: more than 60 percent of prescriptions must be transmitted electronically using CEHRT</td>
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<td>b.</td>
<td>For Hospitals/CAHs: More than 25 percent of hospital discharge medication orders must be transmitted electronically</td>
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3. Implement Clinical Decision Support (CDS) Interventions Focused on Improving Performance on High-Priority Health Conditions

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<tr>
<td>a.</td>
<td>5 CDS interventions related to 4 or more CQMs must be used at a relevant point in care</td>
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<tr>
<td>b.</td>
<td>Drug-drug and drug-allergy interaction checks must be enabled and implemented</td>
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</table>
4. Use Computerized Provider Order Entry (CPOE) for Medication, Laboratory, and Diagnostic Imaging Orders

CPOE must be used for:

- More than 60 percent of medication orders
- More than 60 percent of laboratory orders
- More than 60 percent of diagnostic imaging orders

5. Provide Patient with Timely Electronic Access to Health Information and Patient Specific Education Materials

- More than 80 percent of all unique patients seen or discharged:
  - Must be provided timely access to view online, download, and transmit his or her health information; and
  - The provider must ensure the patient’s health information is available for the patient to access using any application of their choice that is configured to interact with the provider’s CEHRT

- Provider must use clinically relevant information from CEHRT to identify patient-specific educational resources and provide electronic access to those materials to more than 35 percent of unique patients

6. Patient Engagement and Coordination of Care: Use CEHRT to Engage with Patients or their Authorized Representatives for Improved Coordination of Care

- More than 10 percent of all unique patients (or their authorized representative) must actively engage with the EHR and either:
  - View, download, or transmit to a third party their health information; or
  - Access their health information through the use of an application in the provider’s CEHRT; or
  - A combination of (i) and (ii)

- More than 25 percent of all unique patients must receive an electronic message using the CEHRT

Patient generated health data or data from a nonclinical setting must be incorporated into the CEHRT for more than 5 percent of all unique patients

7. Health Information Exchange (HIE): A Summary of Care Record is Provided when Transitioning or Referring a Patient to Another Setting of Care and Incorporates Summary of Care Information from Other Providers into their EHR Using the Functions of CEHRT

- For more than 50 percent of transitions and referrals, the provider that transitions or refers their patient must create a summary of record using CEHRT and electronically transmit the record
- For more than 40 percent of transitions received and new patients, the provider must incorporate into the patient’s EHR an electronic summary of care document
- For more than 80 percent of transitions or referrals received and new patients, the provider must perform a clinical information reconciliation for medication, medication allergies, and a current problem list
8. Public Health and Clinical Data Registry Reporting: The Provider Actively Engages with a Public Health Agency or Clinical Data Registry to Submit Electronic Public Health Data in a Meaningful Way Using CEHRT

Providers must report the following information to the appropriate setting:

- Immunization data
- Syndromic surveillance data
- Electronic case reporting
- Public health registry reports
- Clinical data registry reports
- Electronic reportable laboratory result reports

MEDICAID PROVIDERS

The Medicaid EHR Incentive Program is voluntary for the states, and each state may choose whether or not to administer such a program. Providers treating both Medicare and Medicaid patients can avoid Medicare penalties by successfully demonstrating meaningful use to their state Medicaid agency, even if it occurs after the Medicare attestation period closes, if the state chooses to participate. States must determine whether and how electronic reporting of CQMs would occur, or whether they wish to allow reporting through attestation. The federal government will fund 90 percent of the state’s administrative costs for implementing the technology and systems necessary for compliance.

MEDICARE ADVANTAGE INCENTIVE PAYMENTS

Medicare Advantage Organizations (MAOs) are unique in how they are treated under this incentive program because providers treating MA patients are not paid directly by CMS, as providers treating traditional fee-for-service (FFS) providers are. Instead, CMS pays MAOs a flat monthly fee for each enrollee at the beginning of each month. Through these incentive programs, MAOs may receive payment adjustments according to how well their patients are treated, similarly to how payments are adjusted for providers. In Stage 3, there will not be any changes to the existing policies and regulations for MAOs.

Conclusion

CMS is “statutorily required to require more stringent measures of meaningful use over time.” Since 2009, requirements have gradually increased and required more advanced technology. Each progression is designed to move all providers in the same direction, create standards of practice and for capturing data, and allow for improved patient outcomes. Progress is being made: in 2014, 57 percent of office-based physicians electronically shared health information with their patients and 42 percent electronically shared patient information with other providers, including 26 percent who electronically shared patient information with providers outside their office or group.[5] CMS is also seeking comments on adopting meaningful use attestation into the new MIPS payment scheme which will be implemented beginning in 2019.

[1] A comment period was issued with this final rule to allow for consideration for adjustments in the future as CMS works to establish regulations relating to implementation of the Merit-Based Incentive Payment System
(MIPS) called for in the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Current EHR Incentive Program payment adjustments will end in 2018 and will be incorporated through MIPS beginning in 2019.