The late-breaking regulations for electronic health records require practices to get up to speed quickly.

The Evolution of Meaningful Use: Today, Stage 3, and Beyond

Steven E. Waldren, MD, and Erin Solis

The Centers for Medicare & Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology on Oct. 6, 2015, released a final rule governing the electronic health records (EHR) meaningful use (MU) program through 2018. The timing of the rule’s release was challenging as it gave practices fewer than 90 days to make adjustments. The good news, if there is any, is that if physicians or other eligible professionals (EPs) were on track to meet the old requirements, they should be able to meet the new ones. The new rule eases the requirements in Stage 2 and changes the reporting period for all EPs to any consecutive 90 days in 2015. More important, the new rule initiated a fundamental change in MU that will roll the program into a single set of requirements, beginning in 2015 and ending in 2018. In fact, it now makes more sense to think of MU in terms of calendar years than stages.

2015 – Exit Stage 1

The 2015 reporting period for all EPs is any consecutive 90 days from Jan. 1, 2015, through Dec. 31, 2015. EPs can attest to MU beginning Jan. 4, 2016, and must complete their attestation by Feb. 29 (see “Meaningful use reporting periods,” page 18).

If an EP first attested in 2014 or 2015, then he or she was scheduled to attest to Stage 1 in 2015. However, the final rule eliminated Stage 1 of MU. Instead, these EPs will need to attest to the new Modified Stage 2, although they will be able to use several alternative measures and exclusions that make the Modified Stage 2 look like Stage 1. (See “Meaningful use objectives and measures, 2015-2017 [Modified Stage 2],” page 19.)

If an EP first attested to MU before 2014, then he or she was scheduled to attest to Stage 2 in 2015. These EPs must attest to the new Modified Stage 2 but are not able to use the alternative exclusions except for one involving public health.

Looking at the objectives and measures included in the new Modified Stage 2, a few changes stand out:

• The patient electronic access measure requires patients to view, download, or transmit their health information online. This measure previously required at least 5 percent of an EP’s unique patients to access their records.

About the Authors

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It now makes more sense to think of MU in terms of calendar years than stages.

Stage 1 meaningful use rules have been eliminated in favor of alternatives under Modified Stage 2 rules.

Stage 2 now includes fewer objectives after CMS eliminated measures considered no longer necessary.

this way during the attesting period but now requires just one unique patient to do so. The objective still requires that at least 50 percent of unique patients have access to their records, such as through a patient portal.

• The measure requiring EPs to receive secure electronic messaging from patients has undergone a similar change, with the requirement shrinking from at least 5 percent of patients to at least one patient.

• A number of measures have been eliminated from attestation because CMS either determined them redundant or found that EPs are already tracking them at high levels (see “Redundant and topped out measures,” page 20). EPs are still expected to perform those functions, but they will not be required to report a measure for them. One note of caution: Although EPs are no longer required to demonstrate the ability to share summaries of care electronically with other providers, they are still required to send at least 10 percent of summaries of care electronically.

• The public health reporting requirement has undergone a major change. Previously, Stage 2 required only the capability to submit electronic data to immunization registries. With this final rule, providers are now expected to report two of the three public health reporting measures (the others including syndromic surveillance reporting and specialized registry reporting). To give providers time to adjust to the increased reporting requirement, CMS is offering alternate exclusions for providers scheduled to attest to Stage 1 or Stage 2. More information about the exclusion is available in a set of frequently asked questions on the CMS website.

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### MEANINGFUL USE REPORTING PERIODS

<table>
<thead>
<tr>
<th>Year</th>
<th>Reporting period for payment adjustment year</th>
<th>Deadline to attest to avoid payment adjustment in 2016</th>
<th>Deadline to attest to avoid payment adjustment in 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New participants (eligible professionals who have not successfully demonstrated meaningful use in a prior year)</td>
<td>Any continuous 90 days in 2015</td>
<td>Feb. 29, 2016</td>
<td>Feb. 29, 2016</td>
</tr>
<tr>
<td>Returning participants (eligible professionals who have successfully demonstrated meaningful use in a prior year)</td>
<td>Any continuous 90 days in 2015</td>
<td>None</td>
<td>Feb. 29, 2016</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New participants</td>
<td>Any continuous 90 days in 2016</td>
<td>Oct. 1, 2016</td>
<td>Feb. 28, 2017</td>
</tr>
<tr>
<td>Returning participants</td>
<td>Calendar year 2016</td>
<td>None</td>
<td>Feb. 28, 2017</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New participants</td>
<td>Any continuous 90 days in 2017</td>
<td>Oct. 1, 2017</td>
<td>Feb. 28, 2018</td>
</tr>
<tr>
<td>Returning participants</td>
<td>Calendar year 2017</td>
<td>None</td>
<td>Feb. 28, 2018</td>
</tr>
<tr>
<td>Returning participants demonstrating Stage 3</td>
<td>Any continuous 90 days in 2017</td>
<td>None</td>
<td>Feb. 28, 2018</td>
</tr>
</tbody>
</table>
### MEANINGFUL USE OBJECTIVES AND MEASURES, 2015-2017 (MODIFIED STAGE 2)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measures</th>
<th>Alternate exclusions/specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect patient health information</td>
<td>Conduct or review a security risk analysis, implement security updates as necessary, and correct identified security deficiencies. Also, ensure data is stored according to encryption/storage of data regulations.</td>
<td>None</td>
</tr>
<tr>
<td>Clinical decision support</td>
<td>Implement five clinical decision support interventions related to four or more clinical quality measures. Absent four clinical quality measures related to scope of practice or patient population, interventions must be related to high-priority health conditions. Enable functionality for drug-drug and drug-allergy interaction checks.</td>
<td>If scheduled to report Stage 1 in 2015, eligible professional (EP) must implement one clinical decision support rule.</td>
</tr>
<tr>
<td>Computerized provider order entry (CPOE)</td>
<td>Record more than 60 percent of medication orders, more than 30 percent of laboratory orders, and more than 30 percent of radiology orders using CPOE.</td>
<td>If scheduled to report Stage 1 in 2015, EP must record more than 30 percent of medication orders or more than 30 percent of patients with at least one medication. If scheduled to report Stage 1 in 2015 or 2016, EP may claim an exclusion for laboratory and radiology orders.</td>
</tr>
<tr>
<td>Electronic prescribing</td>
<td>Query for a drug formulary and transmit electronically more than 50 percent of all permissible prescriptions.</td>
<td>If scheduled to report Stage 1 in 2015, EP may claim an exclusion.</td>
</tr>
<tr>
<td>Health information exchange</td>
<td>Transmit electronically more than 10 percent of summary of care records for patient referrals or transitions of care.</td>
<td>If scheduled to report Stage 1 in 2015, EP may claim an exclusion.</td>
</tr>
<tr>
<td>Patient-specific education</td>
<td>Send patient-specific education resources to more than 10 percent of all patients.</td>
<td>If scheduled to report Stage 1 in 2015, EP may claim an exclusion.</td>
</tr>
<tr>
<td>Medication reconciliation</td>
<td>Perform medication reconciliation for more than 50 percent of patients arriving from another care setting.</td>
<td>If scheduled to report Stage 1 in 2015, EP may claim an exclusion.</td>
</tr>
<tr>
<td>Patient electronic access</td>
<td>Provide to more than 50 percent of all patients timely electronic access to view, download, or transmit to a third party their health information. For 2015 and 2016, at least one patient must view, download, or transmit to a third party his or her health information. For 2017, more than 5 percent of all patients must view, download, or transmit to a third party their health information.</td>
<td>If scheduled to report Stage 1 in 2015, EP may claim an exclusion.</td>
</tr>
<tr>
<td>Secure messaging</td>
<td>For 2015, provide patients with the ability to send and receive a secure message electronically. For 2016, at least one patient must send a secure message electronically. For 2017, at least 5 percent of all patients must send a secure message electronically.</td>
<td>If scheduled to report Stage 1 in 2015, EP may claim an exclusion.</td>
</tr>
<tr>
<td>Public health</td>
<td>Actively engage with a public health agency to submit immunization data. Actively engage with a public health agency to submit syndromic surveillance data. Actively engage with a specialized registry to submit specific case data.</td>
<td>If scheduled to report Stage 1 in 2015, EP must report at least one measure. If scheduled to report Stage 2 in 2015, EP must report at least two measures. In 2016 and 2017, all EPs must report at least two measures.</td>
</tr>
</tbody>
</table>
Although Stage 3 is intended to be the final stage of MU, it is not the last act.

Full information about the 2015 requirements is available on the CMS webpage for MU (http://go.cms.gov/1h89Dc5).

2016 – All aboard Stage 2

For 2016 reporting, all EPs must attest to Modified Stage 2, and no one is able to use the alternative measures or exclusions. A caveat to this is that if an EP was previously scheduled to attest to Stage 1 in 2016, he or she may skip the laboratory and imaging computerized order entry measures. The reporting period is a full calendar year for all EPs, except those who are new to MU or attesting for the first time in 2016.

CMS has a placeholder for upcoming information about the 2016 MU program requirements on its website (http://go.cms.gov/1jaclyM).

2017 – Enter Stage 3

For 2017, EPs may choose to attest to either Modified Stage 2 or Stage 3. For those who decide to continue with Stage 2, the reporting period is again a full calendar year. For those who decide to attest to Stage 3 instead, the reporting period is 90 consecutive days. If attesting for the first time in 2017, the reporting period is 90 consecutive days for attesting to either Stage 2 or 3.

Additionally, some of the measure thresholds for Stage 2 are higher. For example, EPs are again required to have at least 5 percent of unique patients view, download, or transmit their health information electronically. Five percent of patients must use secure messaging with their physician as well. Also, EPs must attest to two public health reporting measures; alternate exclusions are not available.

As for certified EHR technology (CEHRT), EPs can use a 2014 edition CEHRT to attest to Stage 2. They can also use either a 2015 edition CEHRT or a combination of 2014 and 2015 editions to attest to Stage 2 or 3.

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REDUNDANT AND TOPPED OUT MEASURES

The Centers for Medicare & Medicaid Services have eliminated certain measures under Meaningful Use Modified Stage 2 that were determined no longer relevant or were covered by other measures. In most cases, physicians and other eligible professionals (EPs) are still expected to perform these functions but no longer will have to report them:

- Record patient demographics,
- Record and chart changes in vital signs,
- Record smoking status,
- Provide clinical summaries for patients for each office visit,
- Incorporate clinical laboratory results as structured data,
- Generate lists of patients by conditions,
- Identify patients needing preventive/follow-up care and send reminders,
- Provide summary of care records for more than 50 percent of patient referrals or transitions of care and perform at least one successful exchange electronically with another provider (note: EPs must still provide 10 percent of care summaries through an electronic health record or health information exchange),
- Record electronic notes in patient records,
- Provide imaging results consisting of the image itself and any explanations or other accompanying information in the electronic health record,
- Record patient family history as structured data.

(1) Meaningful use no longer has optional measures; all are required.

In 2017, physicians can choose to attest to either Stage 2 or Stage 3.
CMS has a placeholder for upcoming information about the 2017 MU program requirements on its website (http://go.cms.gov/1jbmnWV).

2018 and beyond – All aboard Stage 3 and enter MACRA

For 2018, all EPs must attest to Stage 3, and the reporting period is a full calendar year. EPs will be required to use a 2015 edition CEHRT to successfully attest to Stage 3. (See “Meaningful use objectives and measures, 2018 and beyond [Stage 3].”)

Although Stage 3 is intended to be the final stage of MU, it is not the last act. The Medicare Access and CHIP Reauthorization Act (MACRA) rolls the MU program, the Physicians’ Quality Reporting System, and the value-based payment modifier program.

### MEANINGFUL USE OBJECTIVES AND MEASURES, 2018 AND BEYOND (STAGE 3)

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<tr>
<th>Objectives</th>
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<tr>
<td>Protect patient health information</td>
<td>Conduct or review a security risk analysis, implement security updates as necessary, and correct identified security deficiencies. Also, ensure data is stored according to encryption/storage of data regulations.</td>
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<td>Electronic prescribing</td>
<td>Query for a drug formulary and transmit electronically more than 60 percent of all permissible prescriptions.</td>
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<td>Clinical decision support</td>
<td>Implement five clinical decision support interventions related to four or more clinical quality measures. Absent four clinical quality measures related to scope of practice or patient population, interventions must be related to high-priority health conditions. Enable functionality for drug-drug and drug-allergy interaction checks.</td>
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<td>Computerized provider order entry (CPOE)</td>
<td>Record more than 60 percent of medication orders, more than 60 percent of laboratory orders, and more than 60 percent of diagnostic imaging orders using CPOE.</td>
</tr>
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<td>Patient electronic access</td>
<td>Provide to more than 80 percent of all patients timely electronic access to view, download, and transmit to a third party their health information. Access can be provided through a patient portal or other compatible electronic application of the patient's choice. Send patient-specific education resources to more than 35 percent of all patients.</td>
</tr>
<tr>
<td>Coordination of care through patient engagement</td>
<td>More than 10 percent of all patients must view, download, or transmit to a third party their health information or otherwise access their health information. This can be performed through a patient portal or other compatible electronic application of the patient's choice. More than 25 percent of all patients must send a secure message electronically. Incorporate patient-generated data or data from a non-clinical setting into the electronic health records of more than five patients.</td>
</tr>
<tr>
<td>Health information exchange</td>
<td>Provide and electronically transmit a summary of care record for more than 50 percent of patient referrals or transitions of care. Retrieve and incorporate into a patient’s record an electronic summary of care document for more than 40 percent of transitions or referrals received or patient encounters where the physician has never before encountered the patient. Perform clinical information reconciliation for more than 80 percent of transitions or referrals received or patient encounters where the physician has never before encountered the patient.</td>
</tr>
<tr>
<td>Public health and clinical data registry reporting</td>
<td>Meet three of five requirements: Actively engage with a public health agency to submit immunization data. Actively engage with a public health agency to submit syndromic surveillance data. Actively engage with a public health agency to submit case reports of reportable conditions. Actively engage with a public health agency to submit cancer data or health surveys. Actively engage with a specialized registry to submit clinical data.</td>
</tr>
</tbody>
</table>
into a new program called the Merit-Based
Incentive Payment System (MIPS). Part of
the program’s scoring is tied to EPs using
certified EHR technology and attaining MU.

The MU final rule included a 60-day com-
ment period for the public to respond to the
Stage 3 requirements. Based on that feedback,
there may be new rule-making in mid-2016
regarding MIPS as well as potential adjust-
ments to MU Stage 3. Without these new
regulations, it is unclear what MIPS and
the MU requirements will look like in 2019.
More information on MIPS and MACRA
can be found on the American Academy
of Family Physician’s website (http://bit.
ly/1HcWbAB).

Navigating these changes, as well as
adjusting for potential changes in the future,
will require preparation, dedication, and
sacrifice (see “Resources”). But as the integra-
tion of EHRs into physicians’ practices moves
from having its own incentive program to
becoming an accepted and fully incorporated
feature of how those practices function,
are evaluated, and are eventually rewarded,
physicians will be able to focus on how this
technology can further improve the quality
of care they provide to their patients.

RESOURCES
The American Academy of Family Physicians maintains a web page
dedicated to meaningful use (MU) (http://www.aafp.org/practice-
management/regulatory/mu.html). This page will be updated as
changes are released and new information is available.

The Centers for Medicare & Medicaid Services maintain the official
Legislation/EHRIncentivePrograms/).

The Health Information Technology for Economic and Clinical Health
(HITECH) Act, which created MU, also created the regional extension
centers (RECs) program (https://www.healthit.gov/providers-profes-
sionals/regional-extension-centers-recs), which is a state- or region-
based support program for eligible professionals working on MU.

Send comments to fpmedit@aafp.org, or
add your comments to the article at http://