Meaningful Use: Lessons From Stage 1
Early participants in the EHR Meaningful Use program share lessons that they learned.

Eight Tips for Getting More out of Your EHRs
Make sure you are capitalizing on your investment in EHRs by maximizing practice efficiency.

EHRs: What Is the Return on Investment (ROI)?
Here’s how to perform an ROI analysis, and why you should revisit that analysis after EHR implementation.

Meaningful Use: Key Features of Stage 2
Some key points to know about stage 2 of the Meaningful Use regulations.

Survey of EHR User Satisfaction
From ease of use to impact on practice efficiency, here are some highlights from a recent Academy/AAOE survey.
Meaningful Use: Lessons From Stage 1

As of May 2012, more than 1,100 ophthalmologists had attested to meeting the stage 1 criteria for Meaningful Use (MU) of electronic health records (EHRs) and had received their incentive bonus. “Once practices have a good understanding of the requirements, they are attesting successfully,” said Kelsey Kurth, MPP, the Academy health policy manager. She credits this achievement rate to the efforts of the Academy and CMS to educate physicians about the requirements and how they should be fulfilled.

Although the Academy and AAOE are not aware of any ophthalmic practices being denied the incentive bonus after attestation, several issues have caused confusion during the implementation process. This article explains common misunderstandings and offers tips for successful MU attestation.

Lessons Learned

Select an EHR vendor carefully. Not every EHR vendor is a good match for your practice. Take the time to select a vendor with a product that offers all the features your practice needs. And make sure the vendor provides ongoing support and upgrades for those features. Note that not all software can be customized for the medical specialties. A system, for example, may be focused on primary care and might not be an appropriate fit for ophthalmology. “Ask vendors to demonstrate how each of the MU measures will be met for ophthalmology, and confirm that the vendor will be available to assist during the attestation process,” said Joy Woodke, COE, OCS, an administrator at Oregon Eye Consultants in Eugene, Ore.

Understand the MU exemptions. “The Academy receives frequent questions about the vital signs measure, on which ophthalmologists are not required to report,” said Ms. Kurth. “CMS allows ophthalmologists to exclude themselves from this measure because the vital signs are not relevant to ophthalmology practice. Noncompliance on this item will not exclude a practice from collecting the incentive payment.”

Look for ways to improve the process of meeting MU. Another issue of concern during stage 1 reporting has been printing exam summaries for patients. Although providing exam summaries is an MU requirement, practices have found a more efficient way to comply with the obligation. “More than half of our patients can access their summaries electronically or via e-mail, which meets the 50 percent threshold required, so we quit printing this information after each exam. It is counterintuitive to go electronic and then create large amounts of printed information,” said AAOE board member Robert E. Wiggins Jr., MD, MHA, who is a managing partner at Asheville Eye Associates in North Carolina.

Take advantage of the resources available. The Academy, the AAOE, and CMS have a number of resources available to help guide ophthalmologists through this process. Among them are the following:

• The Ophthalmology Meaningful Use Attestation Guide, developed by the AAOE EHR committee, is a comprehensive resource. “It details each of the MU measures, provides ophthalmology-specific guidance, and answers many of the questions that arise as ophthalmologists are attesting,” said Ms. Kurth. At time of press, it was being updated to address the changes to the MU program that were announced in September (see page 13). The AAOE’s Attestation Guide can be downloaded from EHR Central at www.aao.org/ehr.

• The CMS attestation calculator is also recommended by Ms. Kurth. “It is a tool that allows practices to enter their MU data as though they were actually submitting their attestation so they can see how they score. Practices can use it midway through the reporting period to see how they are doing or use it toward the end of adoption to determine how successful they have been with meeting all the targets before they actually submit to CMS,” she said. It is available at www.cms.gov/apps/ehr.

Register your practice early. Both registering the physicians in your practice and attestation take time. Ms. Woodke recommended that practices register early so they have an opportunity to learn how to use the system correctly. First, “verify that all of the physicians in your practice have submitted their current information to the the Provider Enrollment, Chain and Ownership System (PECOS) or there could be delays in the process. Once this information is verified, review the CMS guides to learn how to properly input the data before you begin the attestation process,” she said.

Reduce inefficiencies. The incentive payments help improve your return on investment (ROI) but are not, however, the primary source of your return. “The main leverage point on ROI is physician productivity,” said Dr. Wiggins. “Focus on keeping the practice and physicians productive because the MU payments will likely not make up for lost productivity. Practices should proceed from the perspective that you will try to qualify for the MU payment—it will never be available again—but your main focus should be on keeping the practice productive.”

Apply your experience to stage 2 attestation. “Many of the objectives that we see in stage 2 are actually measures that were introduced during stage 1. Practices should apply their lessons learned in stage 1 for a trouble-free transition to stage 2. Those who have already mastered these measures will be in good shape moving forward,” said Ms. Kurth.

Seek advice. For any areas of uncertainty, Dr. Wiggins recommended finding good sources of education, “whether it is the vendor, AAOE [which offers E-Talk and EHR Central], the Academy [join the “EHRs in Ophthalmology” group at www.aao.org/community], sessions at the Joint Meeting, or a consultant. It will make meeting the MU requirements much easier.”
Eight Tips for Getting More out of Your EHRs

From software selection to system registration, you have spent many months—probably even years—working out all the details of integrating an electronic health record (EHR) system into your practice. But is it performing at its peak? If you have not experienced a significant improvement in your practice’s workflow and productivity, you are probably not taking full advantage of all that your system has to offer. This brief guide will help you assess your practice’s progress and provides some practical advice for maximizing efficiency by capitalizing on your electronic investment.

How Productive Is Your Practice? Perform a workflow analysis and compare it with benchmarks. “EHR integration affects all aspects of a practice, but you should look at productivity and clinic flow benchmarks first. For example, ask yourself: ‘How many patients do we see per day? How much time is spent during the workup and exam? How are these aspects of the practice affected by EHR implementation?’” said Joy Woodke, COE, OCS, administrator at Oregon Eye Consultants in Eugene. She recommended applying the Plan, Do, Check, Act (PDCA) cycle of workflow analysis to improve efficiency: “Analyze the old and design the new. Implement by training your end users and evaluate the implementation.” Next, act on that evaluation by making any necessary adjustments, which brings you back to the planning stage of the cycle. “This ongoing process is an invaluable tool for calculating and maintaining productivity.”

Eight Efficiency Tips
After analyzing your workflow, consider using these eight tips in your practice.

1. Integrate your practice management and EHR systems. If your practice management and EHR software are not created by the same vendor, “make sure the two systems can be suitably integrated from the outset,” said AAOE board member Robert E. Wiggins Jr., MD. “About five years into the process, we concluded that we needed a practice management system that could be better integrated with our EHR software so we converted to another system. This resulted in an additional expenditure but greater efficiency.”

2. Create a plan and make modifications when necessary. Sometimes it takes time to decide which changes will be most effective for your practice. Learning by trial and error can help you “tweak” your system to achieve the best results. “We compared using wireless tablets versus wired computers in our lanes and determined that the wireless system did not work as efficiently because it was slower and the batteries lost charge. It was a process to determine what option worked best for us,” said Albert Castillo, AAOE EHR committee member and administrator of the San Antonio Eye Center.

3. Avoid the temptation of partial EHR implementation. “Some practices only partially implement the technology,” said Mr. Castillo. “They use the components that they like but do not make a complete conversion, which is extremely inefficient. For example, some doctors do not like the testing template because it is misinterpreted as an extra step to perform. However, by not using this feature, the billing department must review each chart manually to determine if any testing was conducted. This expends more time, and is far less efficient, than the original paper chart method because steps in the process are repeated. Use your EHR to capture this data and streamline the process.”

Partial EHR implementation is counterproductive; it creates extra work, said Mr. Castillo. “Practices must be willing to use the system to its fullest potential in order to reap the greatest rewards. You have to be prepared to change the way you practice for EHRs to be efficient.”

4. Examine and exploit all available features. “I encourage practices to embrace all the functionalities of their system and think about ways that it can help improve practice workflow,” said Ms. Woodke. “Examine the patient portal, which typically offers patients online registration, payments, prescription refills, and access to medical information. Many systems include secure messaging that enables patients to e-mail the office and/or physician. Patients are becoming very technosavvy, so practices should take advantage of these features. The more resources we have available online, the more we are able to devote our efforts to patient care.”

In another example, most EHRs have explanatory materials embedded within the system. Review this information to identify and explore system features. “I find the data-mining capability very informative. Being able to access data as necessary is one of the big values of EHRs. We can analyze patients in our database with regard to diagnosis, symptoms, or treatment, for example. We can even assess our scheduling to ensure we are operating at top efficiency,” said Ms. Woodke.

5. Commit to ensuring all work is done in real time. “Many physicians finish up a chart or review charts after hours,” said Dr. Wiggins. “A time-saver for me has been completing a patient’s exam when the patient leaves the room and not leaving the work until later. The charts are complete when the exam is over, including the entry of my notes.”

6. Involve your staff with implementation. Resistance is a by-product of change that can be a drag on productivity. In order to make EHR utilization a success, both physicians and administrators should remain positive and set an example for their staff, all of whom will be integral in the conversion process, from identifying
inefficiencies to suggesting improvements. “No matter what problems arise—and there will be somewe—as you have
to provide leadership with a positive attitude. Quantify the benefits and celebrate achievements,” said Dr. Wiggins.

Administrators should also provide clear, constant communication about outcomes and expectations. “This defuses fear of the unknown. Sometimes staff simply does not understand how the changes will affect their daily routine. Provide comprehensive staff training and routinely ask for their input,” said Ms. Woodke. Dr. Wiggins agreed: “It is important to ask the users of the system, ‘In what areas are we inefficient? What needs improvement?’”

7. Reevaluate staff roles. Staff roles inherently evolve with EHR implementation. Some positions may be eliminated; some revised. “We found a significant change between pre- and post-EHR job descriptions and a slight staff reduc-
tion (1.5 FTEs) due to the efficiency we gained,” said Ms. Woodke. Dr. Wiggins’ practice reduced transcription personnel from 3.5 to one. You may even need to add to your staff. Mr. Castillo found that hiring scribes increased efficiency, enabling the doctors to see more patients.

8. Communicate with your vendor. Most EHR vendors provide training both on- and off-site. Take advantage of any webinars, conferences, listservs, or other educational assistance available for you and your staff. Mr. Castillo said that, “most vendors provide support in terms of functionality and upgrades or for software problems. They generally do not provide template design and customization, so it is important to hire a staff member or consultant to make software modifications as needed.”

The question of whether to preload patient data—and how much information to load—is a common source for confusion and productivity delays during EHR conversion. And how you tackle this aspect of conversion has a tremendous impact on your practice’s efficiency in both the short- and long-term. Scanning entire charts into the system is time-consuming and expensive, said Ms. Woodke. “We asked other practices how they resolved this challenge and decided not to scan entire charts because it might result in hundreds of pages that are not easily searchable. Our practice chose to enter patients’ prior diagnoses, medications, allergies, ocular pressure over time, and other clinical-specific information, which resulted in plenty of historical data to reference when a patient was seen for the first electronic health encounter.”

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EHRs: What Is the Return on Investment?

Health care organizations face great challenges today in managing their revenues and expenses, said Robert E. Wiggins, MD, MHA, who is a member of the AAOE’s board of directors. “They must exercise great care in investing their limited resources to maximize value. Therefore, as with any major capital expenditure, an ROI analysis should be performed before an electronic health record system is purchased.” An organization should compare short- and long-term costs with both the tangible and intangible benefits of conversion. Dr. Wiggins is the physician administrator at Asheville Eye Associates, a 17-physician practice in North Carolina that converted to EHRs in 2007.

Calculate the initial set-up costs. Unless you plan to undergo extensive facility remodeling, equipping your practice with the necessary hardware, software, and networking equipment is the greatest expense associated with EHR adoption. And it is important to consider the transition costs of, for instance, hiring a project-management team, providing user training, managing old paper records, and—not to be underestimated—loss of practice productivity during the conversion.

Estimate change in incremental cash flow. EHR adoption will impact both revenues and expenses, said Dr. Wiggins. Estimate the change to incremental revenues and then subtract the estimated change to incremental expenses to calculate the change in incremental cash flow.

What will impact incremental revenues? Factors that may boost your incremental revenues include increased patient volume, increased reimbursement with better documentation, improved billing cycle management, and federal stimulus funds if you meet the Meaningful Use criteria of the government’s EHR incentive program.

What will impact incremental expenses? These may go up for some categories of expenditure and go down for others. Categories to consider include labor (e.g., expenses for transcription and filing staff may be reduced but those savings may be offset by increased spending on training, on scanning and on IT personnel), supplies (e.g., eliminating paper charts may reduce expenditure), and facility (e.g., ability to convert chart storage space to another use). Other recurring costs to consider include expenditure for maintaining data security, for software upgrades, and for ongoing licensing and maintenance fees.

Impact on revenues and expenses. The

“Take the Intangible Benefits Into Account

“There is a variety of intangible benefits of EHRs that cannot be incorporated into a simple financial analysis,” said Dr. Wiggins. “For example, our organization is involved in a quality improvement program, which makes use of the Baldrige National Quality Program criteria. It is important that we track our outcomes to help improve the quality of care we deliver, which is very difficult to do with paper charts. One might also look at the benefits of a potential for reduction in professional liability with improved quality of care, though this is also difficult to quantify. Furthermore, there is the potential for reducing risk associated with Medicare chart audits.”

“The intangible benefits we experienced are significant,” said Ms. Mullaney. “When we looked at ROI, we wanted to know: Are we doing better at coding? Are we comfortably seeing patients without a tremendous wait time? Is the system keeping us up and running? Are we communicating with our patients better?”

Katzen Eye Group in Maryland converted to EHRs more than eight years ago. Janna Mullaney, the practice’s chief operations officer—along with Richard Edlow, OD, who is the practice’s chief executive officer—kept a careful eye on the fiscal impact. “We found an ROI on a number of items that we were not expecting, particularly substantial savings from using fewer paper products. While we anticipated a reduction in the costs of putting together a chart, we didn’t necessarily think of everything involved. For example, our data and demographic sheets, paperwork related to surgeries, and consent forms are all computerized now. Paper charts have been completely eliminated, which means chart transportation between locations as well is no longer an issue. We no longer have transcription costs for letters and chart note dictation. And, before a patient even walks out of the exam room, the CPT coding is complete and a letter is generated to the referring physician or the patient’s primary care physician. Our hardware expenses have actually increased over our initial investment, though, because we purchase and install additional computers on an as-needed basis when we discover new areas that can improve our efficiency. With multiple computer stations installed throughout the office, our staff can view e-mail and scheduling; the doctors can check to see which patient is next and how many patients are dilating; and techs can answer incoming calls and address patient questions.”

The transition to EHRs also enabled the practice to change the arrangement of its exam rooms. “Patient education information is now printed from a computer as needed,” said Ms. Mullaney. “It can also be e-mailed to patients. So all the racks that were once filled with different forms are no longer necessary.”

One of the greatest returns Katzen Eye Group found was with the transformation of previously unproductive office space. At one location, they were able to convert a file room into three extra exam lanes. “In the last year, we’ve built two offices and not having to dedicate any space
to a file room left room for more clinical space,” said Ms. Mullaney.

Three Ways to Calculate ROI

“There are three commonly used methods to evaluate ROI,” said Dr. Wiggins. “[1] The payback period calculates the time it would take to recoup the initial investment expenses. [2] Net present value calculates the difference between the initial investment expense and the discounted incremental cash flows to an organization because it has made the investment. Discounting or adjusting the cash flows is necessary because of the time value of money and risk associated with the project. If the difference is positive, then there is a positive financial ROI. [3] Internal rate of return is the percentage of return on the initial investment.” There are pros and cons to each approach.

“Vendors often supply a spreadsheet that allows entry of the projected incremental expenses and revenues associated with adoption of their product on a year-by-year basis over a five-year period,” said Dr. Wiggins. “This is a relatively simple analysis that can provide some financial insights into the project over a reasonable period of time. A major caveat, however, is that whereas initial set-up costs can be fairly accurately determined, projected effects on volume and labor savings are merely estimates.”

ROI depends on productivity. “The greatest leverage point in the ROI analysis is the impact on staff productivity and patient throughput,” said Dr. Wiggins. “Small changes on average daily patient volume, for better or worse, can have a significant impact on the bottom line and overwhelm differences in initial costs of one product versus another. The biggest question is whether one EHR can make you more efficient than another. In the long run, initial set-up cost differences will be relatively minor compared with the former considerations.”

Maximize Your ROI

You need a strong project management team. “The benefits of an EHR system and its ROI are directly proportional to a practice’s commitment to EHRS,” said Dr. Wiggins. “Thus, a strong project management team for both selection and implementation is critical to maximizing ROI. It is necessary to look at and change processes in the practice as needed to maximize efficiency with the new technology.”

Don’t underutilize your EHR system. “We try to incorporate every program our vendor offers and use our computers for everything possible,” said Ms. Mullaney. “For example, we have an educational program that runs in the exam rooms while our patients are dilating, and we can e-mail them a link to the program so it can be reviewed at home, too. Our visual acuity charts are all computerized now. E-mails can also be imported into a communication folder in the patient’s chart, so when a patient calls with questions, we can open it up and find out exactly what was said. We also offer patients access to their electronic record through our patient portal, which helps reduce incoming calls to the office.”

Commit to the transition. Not only will a high level of commitment result in a smoother transition, it will improve your results. “Unfortunately, resistance to change is probably the most significant barrier to a maximized ROI,” Dr. Wiggins said. Ms. Mullaney related her experience: “We were lucky because all of our doctors were extremely positive. They were committed to doing whatever was necessary to make it a success.”

Revisit Your ROI Calculation

After implementing your EHR system, it is helpful to revisit your original ROI calculation and compare the projections to the reality, said Dr. Wiggins. Determine whether any variances are due to inaccurate or unrealistic projections or due to faulty performance. Furthermore, costs and benefits may change. “Hardware costs change throughout the process as you work to maximize your system and your practice grows,” said Ms. Mullaney. “Additionally, you find benefit where you may not have been looking initially. Being able to run queries from our clinical database gave us the ability to delve into clinical research, something that we had previously shied away from. I think you also have to consider the ability to participate in e-Rx, PQRS, and now Meaningful Use as a result of having an electronic records system. So I think you do need to revise your ROI calculation after the fact.”

Dr. Wiggins offered another reason to review the accuracy of your ROI calculation: Lessons learned will assist you in performing an ROI calculation for your next major capital investment.

More in Chicago

Analyzing and Maximizing Return on Investment for Electronic Health Records.

After explaining the basic concepts needed to evaluate ROI, Dr. Wiggins and his co-instructors will apply those concepts to a case study showing the actual results in their own practice (event code 370). They will help you improve your own ROI by sharing the lessons they learned over a five-year period. They will also provide a spreadsheet that you can use in your own practice to project or calculate your own ROI with EHR. When: Monday, Nov. 12, 11:30 a.m.-12:30 p.m. Where: Room SS03ab. Access: Academy Plus course pass required.

More than 20 hours on EHRs. In addition to Dr. Wiggins’ course on calculating ROI, other EHR events include two breakfast roundtables (event codes B130 and B137; tickets required), two presentations at the Technology Pavilion (Tech10 and Tech11; free), one symposium (Sym29; free), six Academy instruction courses (183, 198, 233, 415, 521, and 552; Academy Plus course pass required), and seven AAOE instruction courses (208, 213, 260, 327, 393, 406, 442, and 507; Academy Plus course pass required). For more information, go to www.aao.org/2012, select “Meeting Program,” and enter the event codes into “Program Search.”
### Meaningful Use: Key Features of Stage 2

In February, CMS announced its proposed rule for stage 2 of Meaningful Use (MU) in the Medicare EHR incentive program. After a six-month comment period, the final rule was published in *The Federal Register* on Sept. 4. In addition to defining the criteria for stage 2 MU, the September rule also tweaked the program’s timeline (see next page) and modified some of the stage 1 criteria. (The AAOE is addressing these changes when it updates its guide to attestation, available at [www.aao.org/ehr](http://www.aao.org/ehr).)

While the criteria for stage 2 of MU are broadly similar to the stage 1 criteria, they differ in some significant ways. Here are some of the key points to note, along with insights from Kelsey Kurth, MPP, who is the Academy health policy manager, and Joy Woodke, an administrator at Oregon Eye Consultants in Eugene, Ore.

#### Core/Menu Objectives

Stage 2 modifies the core and menu sets of objectives. Under the stage 1 MU criteria, there is a “core set” of 15 objectives and a “menu set” of 10 objectives. You must meet the measure (or qualify for an exclusion) for all 15 from the core set and five from the menu set.

Under the stage 2 criteria, there is a core set of 17 objectives and a menu set of six objectives. You must meet the measure (or qualify for an exclusion) for all 17 from the core set and three from the menu set. “Many of the stage 2 requirements will be familiar because they are carried over from stage 1,” said Ms. Kurth. “In some cases, the thresholds have been raised. In other cases, objectives from stage 1 have been combined into a single measure.”

An expanded core set. “There are three major additions to the core set of objectives [see box],” said Ms. Kurth.

Some core objectives require patients to go online. “The biggest change in stage 2 is that there are new core objectives that will hold physicians accountable for their patients’ actions—namely, ‘View Online, Download, and Transmit’ and ‘Secure Messaging,’” said Ms. Kurth. “The Academy has communicated to CMS that use of electronic features such as patient portals poses significant challenges to the ophthalmology patient. On average, ophthalmology patients tend to be elderly and less comfortable with technology. Some have multiple physical impairments, and others may simply prefer to pick up the phone rather than use a patient portal. In response to the Academy’s concerns, CMS has lowered the threshold for these objectives—from 10 percent in the initial, proposed rule to 5 percent in the final rule.”

“Although 5 percent is a lower threshold, it is a challenge to get many of our patients to embrace new technology,” added Ms. Woodke.

The menu objectives. “Another significant change in stage 2 is the inclusion of several menu objectives that are a better fit for specialty workflow,” said Ms. Kurth. “Specifically, CMS included a menu option for making patient images accessible through the EHR, an option thought to be more relevant to ophthalmology patients than recording vital signs or lab test results, for example.”

#### Clinical Quality Measures (CQMs)

Under the current stage 1 MU criteria, you must report on six to nine clinical quality measures (from a list of 44), but this will change.

Two options for reporting CQMs data. “Beginning in 2014, eligible professionals [EPs] will have two options,” said Ms. Kurth. “They either can report

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### New Objectives in the Core Set

The stage 2 criteria include three major additions to the core set, as follows:

**View Online, Download, and Transmit**
- More than 50 percent of all unique patients seen by the eligible professional (EP) during the EHR reporting period are provided timely (available to the patient within four business days) online access to their health information.
- More than 5 percent of all unique patients seen by the EP view, download, or transmit their health information to a third party.

*Exclusion: EPs who conduct a majority of their patient encounters in an area without high-speed Internet access.*

**Electronic Transmission**
- For 10 percent of transitions or referrals, the EP who transitions or refers their patient to another setting of care or provider of care provides a summary of care record either:
  - Electronically transmitted to a recipient using the EHR
  - Where the recipient receives the summary of care record via exchange facilitated by an organization that is a NwHIN* Exchange participant.
- Conducts one or more successful electronic exchanges with a recipient who has a different vendor’s EHR or conducts one or more successful tests with a test EHR.

*Exclusion: Any EP who transfers a patient to another setting or refers a patient less than 100 times during the EHR reporting period.*

* NATIONWIDE HEALTH INFORMATION NETWORK

**Secure Messaging**
- A secure message was sent using the electronic messaging function of the EHR by more than 5 percent of unique patients seen during the EHR reporting period.

*Exclusion: Any EP who has no office visits during the EHR reporting period, or EPs who conduct a majority of their patient encounters in an area without high-speed Internet access.*
nine CQMs from at least three domains [from a list of 64 CQMs, divided into six domains] or report CQMs through the PQRS EHR option. CMS has proposed to include five ophthalmology measures for CQM reporting beginning in 2014. Most Eye M.D.s will probably choose the PQRS option, because this will allow them to both qualify for MU and avoid the PQRS penalties that also begin in 2015.”

Reporting CQM data electronically in 2014. If you are beyond your first year of MU in 2014, you must submit CQM data electronically, either via the PQRS EHR reporting option or a CMS portal.

Batch Reporting
CMS finalized the ability to use a batch reporting process for MU, which will allow practices to submit attestation information for all of their individual EPs in one file. “In theory this will make the attestation process easier to report as a group,” said Ms. Woodke. “Additionally, if the groups can be set up once and used throughout the MU process, this would be an advantage. Having one authorized individual with access and reporting capabilities will be beneficial for practices with more than one provider.”

Medicare Payment Adjustments
Who faces reductions in payment? Medicare payment adjustments are required by statute to take effect in 2015. These adjustments will be determined by a prior reporting period. If you satisfy the criteria for MU in 2013, you will avoid payment adjustment in 2015. Also, if you first meet MU in 2014, you will avoid the 2015 payment adjustment provided you are able to demonstrate MU at least three months prior to the end of the calendar year and meet the registration and attestation requirements by Oct. 1, 2014.

Who is exempt? You can avoid these payment adjustments if you fall within one of four categories, based on: 1) the lack of availability of Internet access or barriers to obtaining IT infrastructure; 2) a time-limited exception for newly practicing EPs who will not otherwise be able to avoid payment adjustments; 3) unforeseen circumstances such as natural disasters that will be handled on a case-by-case basis; and 4) exceptions due to a combination of clinical features limiting a provider’s interaction with patients or, if the EP practices at multiple locations, lack of control over the availability of certified EHR technology (CEHRT) at practice locations constituting 50 percent or more of their encounters.

Will extra exemptions be added? “It is not likely that CMS will add any new exemptions without pressure from Congress,” said Ms. Kurth. “We are meeting with members of Congress and working to introduce legislation that would provide relief to physicians nearing retirement and in small practices.”

Timeline
Under the recently published rule, the earliest that EPs must move on to stage 2 is 2014 (see table, below), rather than 2013 under the previous regulations.

Final rule includes a three-month reporting period in 2014. Practices that are beyond the first year of demonstrating MU in 2014 will have a three-month quarter reporting period—starting on Jan. 1, April 1, July 1, or Oct. 1—whether they’re attesting to stage 1 or stage 2.

“The greatest advantage of the three-month reporting period is the ophthalmologists entering stage 2 will effectively have four opportunities to meet the stage 2 requirements,” said Ms. Kurth. “If a physician attempts to meet stage 2 from Jan. 1 through March 31 but does not meet all of the measures, he or she has the opportunity to make any necessary workflow adjustments and try again later in the year.”

Practices should start preparing now. “As practices continue to attest stage 1, they should review the details of stage 2 and envision changes to workflow and to software that will be needed to meet the next requirements,” said Ms. Woodke. “Next, identify any challenges you may see on the horizon and work to identify internal solutions if you can. For example, providing patient electronic access or secure messaging will require patient portals and patient e-mail addresses. If your practice has not implemented electronic access via a patient portal, starting that process sooner will be advantageous to implementation. In addition, obtaining patient e-mail addresses is a policy that will assist with MU, but can also be a useful tool for internal practice marketing.”

When can you expect vendors to get their EHRs recertified for stage 2? “It is always good to start the communication with your vendor regarding their plans to meet MU,” said Ms. Woodke. “Being that the stage 2 details have just recently been released, I suspect vendors are analyzing the requirements and starting the software design process. We can expect that most vendors will release upgrades closer to the deadlines, some earlier than others. What all practices should know is what version will meet MU2, and they should make sure their system is ready for the transition.”

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The problems. Ophthalmologists find themselves in a quandary: Which solution fits their needs and their partners’ needs? Which EHR will maximize patient flow, work with the existing practice management software, connect with imaging equipment, and allow users to log on from remote offices? Ophthalmologists in a multispecialty practice need to know which system will reasonably meet every subspecialty’s needs. The issues are many, and they vary with each practice.

Some solutions. To help members make an informed decision in the purchase of an EHR, the Academy and the AAOE have initiated several activities to collect current data and provide comparisons among the EHR systems. These activities include the following:

• A vendor survey. The Academy has updated and expanded upon its 2011 survey of EHR vendors. As they did last year, participating vendors report on whether their product meets the 17 essential and six desirable features that an ophthalmology EHR should have, according to the Academy Medical Information Technology Committee. In addition to that information, this year, vendors provide answers to questions such as: Does your contract guarantee that your software will meet future MU criteria? Is 24-hour support available? And more. Survey results are available at EHR Central (www.aao.org/ehr) as well as in Academy News, the convention show daily, distributed this month at the Chicago Joint Meeting.

• An online forum. The Academy Community provides a forum—EHRs in Ophthalmology—for members to exchange their perspectives and insights and to ask questions about different EHR systems (www.aao.org/community). A new feature, launching soon, will provide community members with a uniform and systematic way to rate EHR programs.

A user satisfaction survey
New this year, the Academy Medical Information Technology committee and the AAOE committee on EHRs developed an EHR system user satisfaction questionnaire, asking ophthalmologists who use EHRs about their experience and insights. This was modeled after the American Academy of Family Physicians’ user satisfaction surveys.

The Academy and AAOE e-mailed this questionnaire to 5,000 ophthalmologists. Two strengths of the survey are: 1) the sample was randomly selected across the United States, and 2) the sample was large. Weaknesses include: 1) a low overall response rate (5 percent), 2) the number of responses for each EHR system may be small, and 3) the responses represent individual opinions and impressions that are not validated by external sources.

Who responded to the survey? A total of 264 ophthalmologists participated in the survey. The majority of the respondents (57 percent) had used their EHR system for a short period: one year or less. About half the respondents (51 percent) were in practices with one to five ophthalmologists. Almost 17 percent of respondents were in the university/medical school/academic medical center category; 11

### Overall, this EHR is easy to use.

- Strongly agree: 10.6%
- Agree: 44.1%
- Neutral: 19.4%
- Disagree: 18.3%
- Strongly disagree: 7.6%

### I am confident that I can achieve Meaningful Use and qualify for Medicare or Medicaid EHR incentive dollars using this EHR.

- Strongly agree: 30.0%
- Agree: 36.5%
- Neutral: 20.8%
- Disagree: 7.3%
- Strongly disagree: 5.4%

### How has your EHR affected your patient volume?

- Increased: 8.0%
- Decreased: 35.2%
- No change: 48.9%
- Not sure: 8.0%
percent were in hospital, HMO, or integrated delivery systems; and 64 percent were in physician-owned ophthalmology practices.

**Which EHR systems are the respondents using?** Altogether, ophthalmologists reported using more than 40 different EHR systems. In this survey sample, the three EHR systems with the most respondents (in descending order) were Epic (47), NextGen (42), and Medflow (26). Other systems with more than five respondents were Compulink, EyeMD, GE Centricity, ifa systems, MDIntelleSys, SRSsoft, and MDoffice. Among the respondents in university/medical school/academic medical center/health maintenance organizations, the most widely used system was Epic. Among the respondents in ophthalmologist-owned practices, the most widely used system was NextGen.

**What were the survey results?** For the overall sample, the survey found mixed reviews on ease of use and effect on patient volume, net income, and efficiency (see pie charts). Overall, a little more than half of respondents (55 percent) thought that their EHR was easy to use. About two-thirds (67 percent) believed that they could qualify for the MU incentive payments with their EHR system. About half or less than half of respondents thought that their EHR system had a positive or neutral effect on their patient volume (56 percent), net income (44 percent), and efficiency (42 percent).

But clearly, adopters have not yet realized many of the benefits of EHR systems.

**What did respondents like most (and least) about their EHR systems?** Respondents were asked to cite the best and worst features of their EHR system. Overall, users cited the following attributes among the best features of their EHRs: remote access to records, capability for better documentation, legibility, ability to share notes and see notes from other physicians, and e-prescribing. Respondents reported that the worst characteristics of their EHRs included cumbersome data entry slowing down patient flow (too many clicks), lack of linkage or integration with diagnostic equipment, poor drawing capabilities, inability to customize at the user level, and lack of good technical support from the vendor.


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**More on EHR Central**

More results from this survey, including vendor-specific data, are available at EHR Central, where you’ll also find numerous EHR-related resources, including a Request for Proposal sample and worksheet; the Ophthalmology Meaningful Use Attestation Guide; and the CMS EHR Incentive Payment and Penalty Schedule. Visit EHR Central at www.aao.org/ehr.

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**More on EHR Central**

How has your EHR affected your practice’s net income?

- Increased: 12.6%
- Decreased: 34.0%
- No change: 31.7%
- Not sure: 21.8%

How has your EHR affected the efficiency of your clinical practice?

- Increased: 22.9%
- Decreased: 49.2%
- No change: 18.7%
- Not sure: 9.2%