COMPLIANCE GUIDELINES FOR PRIVATE PRACTICE: INTRODUCTION TO MEANINGFUL USE

A DOCTORAL PROJECT

Submitted in Partial Fulfillment of the Requirements

For the degree of

DOCTOR OF NURSING PRACTICE

By

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ABSTRACT

Health care has experienced dramatic changes over the past several decades. With the passage by Congress of the Health Insurance Portability and Accountability Act (HIPAA) of 1996, the goal was to protect the privacy of healthcare data and to promote more standardization and efficiency in the healthcare industry. Since then, some of the rules of HIPAA have been amended when Congress passed the American Recovery and Reinvestment Act (ARRA) of 2009. Embedded in ARRA was the Health Information Technology for Economic and Clinical Health (HITECH) Act, which went into effect in February of 2010.

These regulations have protected the security and privacy of patients’ health information; however, they have also posed some challenges for the providers of care to implement. HITECH has made it mandatory for all healthcare providers to incorporate electronic health records (EHRs) into practice. Complying with these regulations may prove difficult for small practices in terms of a financial burden.

This project involved developing a workbook for advanced practice registered nurses and medical who are contemplating starting an independent practice in California. The focus is on incorporating the EHR guidelines into practice. Emphasis includes clear directions about how to comply with the myriad of regulations, which are
especially lacking in current literature. It does not focus on the requirements that are necessary for reimbursement.
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Last but not least, thanks to all the wonderful, diverse members of my cohort for their unwavering support and assistance during this final academic endeavor.
BACKGROUND

Embarking on a private medical practice can be a daunting endeavor. There are many facets of practice to consider, including business, clinical, management, and technology. With the rapid advances in technology and mandates from the Center for Medicare and Medicaid (CMS) to incorporate electronic health records (EHRs) into practice, there are some gaps in the literature as how to achieve this in private practice. Although numerous books have been written on the subject of establishing one’s practice, there is very little information readily available on newer mandates. In particular, complying with the new regulations pertaining to CMS and the implementation of EHRs has posed new challenges in privacy and security for the healthcare providers. The impetus for this transition to EHRs was largely based on the rising health care costs and the need for both clinical and outcomes data to help improve the quality of care (Rippen, Scott, & Hartley, 2013).

Meaningful Use (MU)

Through recent transformations in health care—for example, the Affordable Care Act (ACA) in 2010 (U.S. Department of Health and Human Services [USDHHS, 2014) and new governmental regulations in the American Recovery and Reinvestment Act (ARRA) of 2009 (Recovery.gov, n.d.)—CMS has incentivized EHR adoption in health care. The term meaningful use is used in the Health Care Reform and Health IT Stimulus (HITECH) Act (part of the ARRA) to encompass a vision of improved health care through computerization and digital networks. The intent of the HITECH Act was to lay the groundwork for (a) improved health care, quality, safety, and efficiency through the use of health information technology (HIT), including EHRs; (b) the
infrastructure to support the adoption of EHRs; and (c) a private and secure health information exchange (HIE; Rippen et al., 2013). MU is an attempt by the U.S. government to define the baseline for what a clinician using an EHR system should be able to accomplish. Its definition may change yearly, and it will become more stringent as time goes on until it encompasses most of what the HIT research community agrees is needed for improved clinical care (Trotter & Ullman, 2013).

There are financial incentives associated with MU. Practitioners can receive payments when they prove that they are meaningful users of certified EHR systems. One of the limitations of this funding is that it applies only to providers that bill Medicare or Medicaid. It may not affect those providers who do not bill Medicare or Medicaid currently. Nevertheless, eventually all private insurers will follow those regulations when they start to penalize healthcare providers who fail to provide EHR-derived quality healthcare data (Trotter & Ullman, 2013).

Steps of the Medicare and Medicaid EHR Incentive Programs

The Medicare and Medicaid EHR Incentive Programs are staged in three steps with increasing requirements for participation.

Stage 1: Meaningful use criteria focus on:

- Electronically capturing health information in a standardized format
- Using that information to track key clinical conditions
- Initiating the reporting of clinical quality measure and public health information
- Using information to engage patients and their families in their care

Stage 2: Meaningful use criteria focus on:

- More rigorous health information exchange (HIE)
- Increased requirements for e-prescribing and incorporating lab results
- Electronic transmission of patient care summaries across multiple settings
- More patient-controlled data
Stage 3: Meaningful use criteria focus on:

- Improving quality, safety, and efficiency leading to improved health outcomes
- Decision support for national high-priority conditions
- Patient access to self-management tools
- Access to comprehensive patient data through patient-centered HIE
- Improving population health

Achieving meaningful use during Stage 1 requires meeting both core and menu objectives. All of the core objectives are required. Eligible providers may choose which objectives to meet from the menu set. (USDHHS, Office of the National Coordinator for Health Information Technology [ONC], n.d.b, p. 1)

Complying with the new regulations pertaining to CMS implementation of EHRs has posed new challenges in privacy and security. There are various sources on the Internet (e.g., CMS.gov, Health IT.gov) that provide information about the regulations; however, there is no one area where comprehensive data can be accessed (Trotter & Ullman, 2013). As with many government regulations, the ARRA of 2009 offers a problematic amount of information to sort through. The workbook developed for this project (see Appendix) synthesizes some of the many pages of legislation and rule making by CMS and the USDHHS to aid in understanding the specific criteria that can begin to make a practice meaningful-use compliant.

There are many benefits as well as challenges to the ownership of a practice that one must anticipate prior to embarking on such an endeavor. One of the major benefits is the ability to practice to the full extent of one’s training and education. Other benefits include involving patients in decisions related to their care, improving access to primary health care, reducing pressures on the healthcare system, being valued and trusted by patients, and providing high-quality management of chronic illness (e.g., diabetes, high blood pressure). However, the cost of starting a practice can be a major challenge, and
finding resources to minimize costs is often much appreciated. Such practices are constantly challenged to be financially viable in an increasingly complex healthcare system that does not consistently recognize nursing for reimbursement purposes. Applying for meaningful-use incentives can assist in defraying some of the costs associated with purchasing an EHR system.

There is little readily available information regarding federal and state regulations and compliance in adhering to the rules. Despite the limitations, many advance practice registered nurses (APRNs) are establishing their own practices. The information provided in this project should be helpful for both APRNs and physicians as they must become familiar with the most current legislative guidelines that may impact their practice. Without this knowledge, many nurses may encounter frustration or disappointment. Applying a framework to guide the nurse practitioner (NP)/APRN in this endeavor may assist in establishing and managing the business aspects of their practice, especially those related to technology (Varesko, 2003). The behavior compliance framework was utilized for awareness of complying with the mandates as well as for patient privacy, as it relates to information security practices.

**Needs Assessment**

The NP role had its inception in the mid-1960s in response to a shortage of physicians. With the ACA of 2010, there may be a greater need for NPs to fill in the gap for primary care and other specialties to allow patients greater access to health care (Christian, Dower, & O’Neill, 2007).

Federal law defers to state law regarding NP training requirements. These vary widely among states. Most states now require NPs to be nationally certified. Currently,
NPs may perform services authorized under the scope-of-practice provisions of the nurse practice acts of their own states. Most states require NPs to practice in collaboration with a physician. In the mid-1970s, state legislators began to consider allowing NPs to prescribe drugs. NPs have since achieved some degree of prescriptive authority in all 50 states (Christian et al., 2007).

NPs provide primary and specialized health care to individuals, families, groups, and communities in a wide range of settings from nurse-managed clinics, nursing homes, and hospitals to health maintenance organizations, workplaces, schools, or their own private practices. At least 66% of NPs practice in primary care settings. NPs effectively bring together the medical knowledge needed to diagnose and treat illnesses with the values and skills of nursing. NPs play key roles as leaders, consultants, and researchers by incorporating their knowledge into their practice. They are in high demand to provide health promotion, health maintenance, and sick-care services (American Nurses Association [ANA], 2011).

In 2008, the Robert Wood Johnson Foundation (RWJF) and the Institute of Medicine (IOM) launched a 2-year initiative to respond to the need to assess and transform the nursing profession. The IOM (2010) appointed the committee on the RWJF Initiative on the Future of Nursing with the purpose of producing a report that would make recommendations for an action-oriented blueprint.

The 2010 IOM report on the future of nursing urges that APRNs “should be able to practice to the full extent of their education and training” (p. 1). They can be licensed to practice independently, although many states still have practice restrictions that vary from state to state. Many studies have confirmed that APRNs deliver care that is
equivalent to that provided by physicians (Brown, 2007; Mundinger et al., 2004). Nurse practitioners are noted for providing more health promotion to their patients and are often rated higher in patient satisfaction.

Nurses have great potential to lead innovative strategies to improve the healthcare system. Independent practice is one of the avenues for nurses to do so; however, a variety of historical, regulatory, and policy barriers have limited nurses’ ability to generate widespread transformation (IOM, 2010).

It can be challenging to embark on a new frontier in nursing and open a solo practice. State laws allow nurses to set up their own businesses, and some clearly allow independent practice. Adding to the challenge, many states have differing levels of supervision or collaboration required, not to mention the fact that it can also be financially challenging.

Despite the barriers, it is possible to contemplate and move forward in achieving one’s goal as an independent practitioner. This project was designed to provide some of the answers to the questions posed by those considering independent practice:

1. How can APRNs successfully transition from working at other organizations to establish their own independent practice?

2. What are the challenges they face?

The workbook developed for this project was designed to be an invaluable resource for those NPs choosing to establish their own practice. It should add to the available resources by providing a format to incorporate the new EHR regulations into practice.
SYNTHESIS OF THE LITERATURE

Literature describing private practice for NPs/APRNs has become more available over the last several years. Much of this literature is already outdated due to the recent changes in health care. For example, with the institution of the HITECH as part of the ARRA of 2009, a number of regulations have been added since much of the literature was written. Since these new rules and regulations have been promulgated, there are very few articles that attempt to address the new requirements. A search was conducted in PubMed, CINHAL, and many Internet search engines using the following key words: private practice, HITECH, meaningful use, CMS, and HealthIT.

The passage of the ACA in 2010 has witnessed a movement toward increasing independent practice for NPs to assist in the primary care shortage. This type of assistance is a controversial area that is hotly debated by the medical profession. A unique 2004 study explored the outcomes of care in patients randomly assigned either to a physician or a NP for primary care after an emergency or urgent care visit (Mundinger et al., 2004). Findings indicated that a NP practice had the same degree of independence as the physician. After analyzing the services that patients utilized and interviewing 1,136 patients, the researchers determined that the health status of the NP patients and the physician patients were comparable at initial visits, 6 months, and 12 months. A follow-up study conducted 2 years later confirmed continued comparable outcomes for the two groups of patients. This is now considered the most definitive research on the quality of NP care (Maher, 2010).

Regulations defining the scope of practice limitations vary widely by state—an important factor for a NP-APRN to consider and be aware of when setting up a private
practice. For example, in 2011 in California, the California Code of Regulations, Section 1485, required that NPs rely on standardized procedures for authorization to perform overlapping medical functions; NPs must practice under a collaborative written agreement with a physician. The Business and Professions Code (BPC), Section 2836.1, authorizes NPs to obtain and utilize a “furnishing number” to supply drugs and devices. This is defined as the act of making a pharmaceutical agent or agents available to the patient in strict accordance with a standardized procedure. In addition, all NPs who are authorized pursuant to Section 2831.1 of the BPC to furnish or issue drug orders for controlled substances must register with the U.S. Drug Enforcement Administration. In California as of February 2013, there were 17,796 NPs who had to comply with these regulations (California Board of Registered Nursing, 2013).

There are a series of resources that outline establishing an APRN private practice, each with benefits and areas not yet covered in the literature. Zaumeyer’s (2003) *How to Start an Independent Practice* outlines the specifics of establishing, building, and operating an independent practice on a day-to-day basis; it is designed as a guide for NPs-APRNs.

Carolyn Buppert, an attorney and NP, has written extensively about NPs’ business practices. Her books and legal guides outline the legal issues affecting NPs, especially those most common to independent practices (Buppert, 2004, 2008). Her books are thorough guides for setting up practice, negotiating contracts, dealing with reimbursement issues, and ways of avoiding malpractice. However there is little information pertaining to the requirements for training employees, as well as safeguards for patient privacy and safety.
Several of the books currently available refer to the existing federal and state regulations, such as those developed by the CMS, and the Health Insurance Portability and Accountability (HIPAA) Act of 1996 (Buppert, 2004, 2008). The newest edition of HITECH, however, has not been addressed in the literature pertaining to opening one’s own practice. While there are many different areas on government websites where these regulations are explained, there do not appear to be easily accessible guidelines for implementing these regulations into practice, especially a private practice. For example, CMS.gov provides a HIPAA information series that includes several topics, while HealthIT.gov outlines regulations and strategies for researchers and implementers. It is an official website that makes it possible for healthcare providers to better manage patient care through secure use and sharing of health information (USDHHS, ONC, n.d.a). Although these sites are useful, because there is not one particular area for specific guidelines, it is necessary to search many websites or databases to find relevant information. Also, just reviewing the Acts of Congress can entail combing through thousands of pages of documents.

The meaningful-use objectives are grouped into five patient-driven domains that relate to health outcomes policy priorities: (a) improving quality, safety, and efficiency; (b) engaging patients and families; (c) improving care coordination; (d) improving public and population health; and (e) ensuring privacy and security for personal health information (USDHHS, ONC, n.d.c).

HITECH provides the USDHHS with the authority to establish programs to improve healthcare quality, safety, and efficiency through the promotion of HIT), including EHRs and private and secure electronic health information exchange (HIE).
These new regulations as well as those set forth in HIPAA increase the potential legal liability for noncompliance as well as provide for more enforcement (USDHHS, ONC, n.d.a).

Prior to the adoption of MU, any provider that did not conduct transactions electronically may not have been covered by HIPAA. That means that HIPAA did not apply to any healthcare transactions conducted by paper, telephone, or fax. Now meaningful use requires all healthcare entities to adopt, develop, and use EHRs for patients; in fact, there will be penalties imposed for those not complying with these mandates in the future. This is all in the effort to promote standardization and efficiency in the health care industry (CMS, 2003).

Before the HIPAA regulations, no generally accepted set of security standards or general requirements for protecting health information existed in the healthcare industry. As the industry began to move away from paper to the electronic transmission of claims and health information, protecting the confidentiality, integrity, and availability of electronic health information became increasingly important (CMS, 2007). Therefore, methods to comply with these requirements are needed by all healthcare providers and practices.

**Conceptual Framework**

The framework for these guidelines is a combination of risk management principles and compliance theory. These are the primary concepts that should guide a provider in setting up training as well as developing policies to adhere to the regulations. Risk management involves preventive law—that is, what one does to avoid problems
later. NPs are at risk for two categories of professional mishap: clinical mishap and business mishap; the two can also overlap (Buppert, 2004).

A new and more explicit set of guidelines is needed to avoid overlooking an important regulation and being subject to being found out of compliance and fined or shut down. Each practice may look at these recommendations and work out a feasible plan to provide for training and maintaining these standards. An important part of avoiding problems is becoming cognizant of the state and federal regulations regarding practice and complying with them.

Regulatory reforms and changing community expectations about organizational behavior have increased the emphasis on the role of culture in organizational compliance. The effort to understand how to encourage appropriate corporate behavior has gained significant momentum in the past several years (Interligi, 2010). *Webster’s II New College Dictionary* (Editors of The American Heritage Dictionaries, 1995) suggests three uses of the word compliance: “the act or process of complying to a desire, demand, or proposal or to coercion”; a disposition to yield to others; “the ability of the object to yield elastically when a force is applied” (p. 230). *Comply* is derived from the Latin word *cumplere*, which means “to conform or adapt one’s actions to another’s wishes, to a rule or to necessity” (Evangelista, 1999, p. 6).

Compliance is a critical management function that attracts significant financial resources in organizations. It has traditionally been understood as conformity or obedience to regulations and legislation. More contemporary conceptualizations of compliance, as defined by legal and organizational scholars, have expanded its scope. Not only do regulators require organizations to meet their legal and regulatory
obligations, but also stakeholder and community scrutiny requires that corporations operate according to expected norms and values (Interligi, 2010).

Understanding the complex dynamic and uncertain characteristics of organizational employees who perform authorized or unauthorized information security activities is deemed to be a very important and challenging task. In 2010, Alfawaz, Nelson, and Mohannak proposed a behavior compliance conceptual framework for classifying and organizing the characteristics of organizational behavior and the subjects involved in information security practices. This framework expands the traditional human behavior and social environment perspectives used in social work by identifying how knowledge, skills, and individual preferences (values) work to influence individual and group practices with respect to information security. Four modes were identified by Alfawaz et al. to categorize individual security behaviors:

- **Not Knowing-Not Doing** is a mode where the individual does not know the organization’s requirements for information security of behavior and does not have security knowledge. They are not behaving in the correct manner. Security is compromised.

- **Not Knowing-Doing** is where the subject does not know the security requirements but is nonetheless behaving correctly. Security is not compromised.

- **Knowing-Not Doing** is where the subject knows the rules and has the required knowledge and skills but is not behaving correctly. Security is compromised.

- **Knowing-Doing** is where the subject knows the rules of behavior, has the knowledge and skills, and they are doing the right thing. Security is not compromised. (p. 49)

Understanding perceptions and classifying them is crucial to human survival and adaptation. This process can serve two purposes: It can make systematic studies possible, and classification may assist organizations in prioritizing their security efforts (Alfawaz et al., 2010).
The creation of a compliance program would promote adherence to statutes and regulations applicable to federal healthcare programs. The goal of a voluntary compliance program is to provide a tool to strengthen the efforts of healthcare providers to prevent and reduce improper conduct. It can also benefit the practice by helping to streamline business operations (U.S. Office of Inspector General [USOIG], 2000). There are seven recommended components of an effective compliance program; however, in a small practice, not all seven must be implemented, in recognition of the financial and staffing resource constraints faced by small practices. Rather, these components are intended to present guidance and assist practices in developing a compliance program:

- Conducting internal monitoring and auditing
- Implementing compliance and practice standards
- Designating a compliance officer of contact
- Conducting appropriate training and education
- Responding appropriately to detected offenses and developing corrective action
- Developing open lines of communication
- Enforcing disciplinary standards through well-publicized guidelines.

(USOIG, 2000, p. 59434)

In addition to ethical aspects of compliance, the entrepreneur needs to self-protect and consider risk management not only to comply with the standards but also to limit any liability or fines.
METHODOLOGY

Planning is an important component of a successful business. Complying with state and federal regulations is critical. These regulations are important not only for possible reimbursement but also for patient health information privacy and safety.

The goal of this project was to produce and publish a workbook (see Appendix) with guidelines for complying with federal and state requirements of health information technology. This project consisted of reviewing and synthesizing the standards and requirements that are available from HIPAA, HITECH, and CMS to provide useful guidelines for practice. The resulting guidelines have been written as clear, specific directions for implementing the regulations into practice. The information includes step-by-step information of meeting the menu and core objectives of Stages 1 and 2 of MU; the guidelines pertain to outpatient requirements only.

The workbook was sent to Denise Scott, MM, RN-BC, a coauthor of a book on MU (Rippen et al., 2013), and her review and feedback were requested. Her feedback was appreciated, and she provided some ideas on how to expand some of the content that was taken into consideration and incorporated in a few areas of the workbook. The draft was also disseminated to NPs who had established practices to review. The final edited workbook will be posted on a website for easy distribution. If feasible, the workbook will be published in hard copy to make it as accessible as possible for those contemplating independent practice.
DISCUSSION

This project has addressed the EHR compliance challenges faced by APRNs or MDs choosing to transition into private practice and provides them with the necessary guidelines to facilitate this move. The goal is to assist them in saving time and money. By using the workbook (see Appendix), they will be able to access the information in one location and may not have to hire a consultant or deal with an EHR company for assistance.

In particular, this project focuses on guidelines related to the institution of an EHR system as well those required to comply with the privacy and security regulations of practice. The workbook is a practical, concise overview of the beginning HIT needs for an outpatient practice.

The information in this workbook is also meant to inform providers of the guidelines to avoid future penalties or complaints, which could occur if patients are not given timely access to their medical records or if there is a breach of privacy. With the information contained in the workbook, providers should be in the knowing–doing group for compliance with information safety.

It is this writer’s hope that private practitioners will find the information in this workbook beneficial in achieving the MU objectives. If there appears to be interest in the workbook or positive feedback from users, there is the potential for an expansion or a second edition. A future edition may also be developed as the guidelines continue to evolve and undergo revision, or when Stage 3 regulations become finalized. The writer can be contacted at sbowernp@yahoo.com
REFERENCES


COMPLIANCE GUIDELINES FOR PRIVATE PRACTICE: AN INTRODUCTION TO MEANINGFUL USE

By

Stacy Bower, DNP(C), FNP-BC, PMHCNS-BC

2014
PREFACE

In private practice time is money and money is time. Integrating meaningful use (MU) can be a daunting and costly endeavor, especially for those practices not eligible for incentive funds.

This workbook was undertaken to fulfill requirements for a Doctor of Nursing Practice Capstone Project. It is intended to assist those practitioners who are contemplating transitioning to electronic health records (EHRs) and are interested in meeting the MU objectives.

I hope that there are those that will find it helpful as a guide to streamlining the process, thus saving time and money to achieve MU.

Disclaimer: The information contained in this guide is not intended to serve as legal advice, nor should it substitute for legal counsel. Readers are encouraged to seek additional guidance to supplement the information contained herein.
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INTRODUCTION

Health care has experienced dramatic changes over the past several decades. With the passing by Congress of the Health Insurance Portability and Accountability Act (HIPAA) of 1996, the goal was to protect the privacy of health care data, and to promote more standardization and efficiency in the health care industry. Since then, some of the rules of HIPAA have been amended when Congress passed the American Recovery and Reinvestment Act (ARRA) of 2009.

Embedded in ARRA was the Health Information Technology for Economic and Clinical Health (HITECH) Act, which went into effect in February, 2010 (Rippen, Scott, & Hartley, 2013).

These regulations have protected the security and privacy of patients’ health information; however they have posed some challenges for the providers of care to implement into practice. HITECH has made it mandatory for all healthcare providers to incorporate EHRs into practice. Not only might this present a financial burden, but also complying with the regulations may prove difficult for small practices.

There are many benefits as well as challenges to ownership of a practice that one must anticipate prior to embarking on this endeavor. One of the major benefits is the ability to practice to the full extent of one’s training and education. Others include involving patients in decisions related to their care, improving access to primary health care, reducing pressures on the healthcare system, being valued and trusted by patients, and providing high-quality management of chronic illness (e.g., diabetes, high blood pressure [BP]). However, the cost of starting a practice can be a major challenge, and finding resources to minimize costs is often much appreciated. Such practices are constantly challenged to be financially viable in an increasingly complex healthcare system that does not consistently recognize nursing for reimbursement purposes. Applying for MU incentives can assist in defraying some of the costs associated with purchasing an EHR system.

This workbook will briefly address those providers that are eligible for incentives; however, this book is primarily designed for those in private practice who may not be Medicare or Medicaid providers. Therefore, financial incentives will only briefly be addressed.
MEANINGFUL USE

Recent transformations in health care (e.g., the Affordable Care Act [ACA] in 2010 and the new governmental regulations in the ARRA of 2009), the Centers for Medicare and Medicaid (CMS) have incentivized EHR adoption in health care. The term meaningful use is used in the HITECH Act (part of ARRA) to encompass a vision of improved health care through computerization and digital networks. The intent of the HITECH Act was to lay the groundwork for (a) improved health care, quality, safety and efficiency through the use of health information technology (HIT), including EHRs; (b) the infrastructure to support the adoption of EHRs; and (c) private and secure health information exchange (HIE; Rippen et al., 2013). MU is an attempt by the U.S. government to define the baseline for what a clinician using an EHR system should be able to accomplish. Its definition may change yearly, and it will become more stringent as time goes on until it encompasses most of what the HIT research community agrees is needed for improved clinical care (Trotter & Uhlman, 2013).

There are financial incentives associated with MU. Practitioners can receive payments when they prove that they are meaningful users of certified EHR systems. One of the limitations of the funding is that it applies only to providers that bill Medicare or Medicaid. It may not affect those providers that do not bill Medicare or Medicaid currently. As soon as EHR systems become pervasive, they will become fair game for discriminatory payments from private insurers. The private insurers in the United States will not join Medicare or Medicaid in paying more for EHRs, but they will certainly join them in paying less for the lack of EHR systems (Trotter & Uhlman, 2013).
THE THREE STAGES OF MEANINGFUL USE

In order to achieve MU, eligible providers (EPs) and hospitals must adopt certified EHR technology and use it to achieve specific objectives. These meaningful objectives and measures will evolve in three stages over the next 5 years.

Steps of the Medicare and Medicaid EHR Incentive Programs

The Medicare and Medicaid EHR Incentive Programs are staged in three steps with increasing requirements for participation.

Stage 1: Meaningful use criteria focus on:
- Electronically capturing health information in a standardized format
- Using that information to track key clinical conditions
- Initiating the reporting of clinical quality measures (CQMs) and public health information
- Using information to engage patients and their families in their care

Achieving Meaningful Use during Stage 1 requires meeting both core and menu objectives. All of the core objectives are required. Eligible providers may choose which objectives to meet from the menu set.

Stage 2: Meaningful use criteria focus on:
- More rigorous health information exchange (HIE)
- Increased requirements for e-prescribing and incorporating lab results
- Electronic transmission of patient care summaries across multiple settings
- More patient-controlled data

Stage 3: Meaningful use criteria focus on:
- Improving quality, safety, and efficiency leading to improved health outcomes
- Decision support for national high-priority conditions
- Patient access to self-management tools
- Access to comprehensive patient data through patient-centered HIE
- Improving population health (U.S. Department of Health and Human Services [USDHHS], Office of the National Coordinator for Health Information Technology [ONC], n.d.b, p. 1)

Each stage comes with its own set of core measures (required measures) and menu set measures (also required, but elective measures are provided for selection).

You must also select clinical quality measures (CQMs) that are cross-referenced with reporting numbers assigned to the reporting criteria by the National Quality Forum (NQF) and the Physician Quality Reporting Systems (PQRS; Rippen et al., 2013).
MU objectives are broken down into two distinct groups for determining Stage 1 compliance: a core set of objectives and a menu set. A meaningful user must satisfy all objectives under the core set, and 5 out of the 10 menu set objectives. The “Criteria” sections define the MU objectives. And the “Measure” sections define the reporting threshold that must be met to demonstrate MU for the associated objective (Trotter & Uhlman, 2013).
ARE YOU A COVERED ENTITY/ELIGIBLE PROVIDER?

Requirements for eligible professionals:

- Incentive payments for eligible professionals are based on individual practitioners.

- If you are part of a practice, each eligible professional may qualify for an incentive payment if each eligible professional successfully demonstrated MU of certified EHR technology.

- Each eligible professional is eligible for only one payment, either based on Medicare collections or Medicaid patient volume, not both.

- A provider may receive only one incentive payment per year, regardless of how many practices or locations at which he or she provides services.

- Hospital-based eligible professionals are not eligible for incentive payments. An eligible professional is considered hospital based if 90% or more of his or her services are performed in a hospital inpatient or emergency room setting (see Figure 1).

<table>
<thead>
<tr>
<th>Eligible professionals under the Medicare EHR Incentive Program include:</th>
<th>Eligible professionals under the Medicaid EHR Incentive Program include</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of medicine or osteopathy</td>
<td>Physicians (primarily doctors of medicine and doctors of osteopathy)</td>
</tr>
<tr>
<td>Doctor of dental surgery or dental medicine</td>
<td>Nurse practitioner</td>
</tr>
<tr>
<td>Doctor of podiatry</td>
<td>Certified nurse-midwife</td>
</tr>
<tr>
<td>Doctor of optometry</td>
<td>Dentist</td>
</tr>
<tr>
<td>Chiropractor</td>
<td>Physician assistant who furnishes services in a federally qualified health center or rural health clinic that is led by a physician assistant</td>
</tr>
</tbody>
</table>

WHO OVERSEES MEANINGFUL USE?

HITECH ACT: Health Information Technology for Economic and Clinical Health Act
The HITECH Act allocated $19 billion in funds to promote the adoption of MU-certified EHRs by hospitals and providers. The HITECH Act is part of the ARRA (or “stimulus plan”) signed into law by President Obama in 2009, which includes $59 billion in healthcare initiatives.

CMS: Centers for Medicare and Medicaid Services
CMS is in charge of distributing incentives to EPs. All providers and hospitals pursuing MU must register and attest with the CMS to receive their incentives.

ONC: Office of the National Coordinator for Health Information Technology
Founded in 2004 within the USDHHS, the ONC leverages funds from the HITECH Act to oversee MU certification for EHR technology and set national goals for HIT adoption. The ONC also manages over 70 regional extension centers that provide local EHR assistance for providers (practicefusion.com, 2014).

Helpful Websites

The following three websites provide the most up-to-date information on keeping up with MU:

1. www.CMS.gov/EHRIncentivePrograms
   This is the CMS official website for MU.

2. www.HealthIT.gov
   This website, maintained by the USDHHS, guides patients, consumers, and healthcare professionals.

3. www.healthit.gov/policy-researchers-implementers
   This portal provides legislative links to regulations and guidance, ONC initiatives, news, events resources, and HITECH program initiatives (Rippen et al., 2013).

Stage 1: Eligible Professional MU Core and Menu Measures

Core Objectives: All of the measures in the core set are required for MU compliance.

Objective: What eligible providers need to do.
Because there are many updates and changes to the requirements for MU, it is important to continuously check the registration website:

http://search.usa.gov/search?utf8=%E2%9C%93&affiliate=healthit.gov&query=updates
Core Measure #1
Computerized Provider Order Entry (CPOE)

Use CPOE for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines (i.e., e-prescribing).

Measure
More than 30% of unique patients seen by the eligible provider (EP), who have at least one medication in their medication list, have at least one medication order entered using CPOE.

Exclusion
Any EP who writes fewer than 100 prescriptions during the EHR reporting.

Clinical Relevance
Directly entering orders into a computer has the benefit of reducing errors by minimizing the illegibility or misinterpretation of handwritten prescriptions. It also allows electronic tracking of prescriptions. In addition, it allows for the combination of CPOE and clinical decision support (CDS) tools to reduce prescription error related to interactions with other prescribed drugs, and dosing (USDHHS, ONC, n.d.c).

Core Measure #2
Drug Interaction Checking


Measure
The EP has enabled this functionality for the entire EHR reporting period.

Exclusion
None.

Clinical Relevance
By entering the allergy data into the EHR, it is then available to the CDS feature that can alert the provider of potential safety issues for the patient (Rippen et al., 2013). Certified EHRs with the drug interaction checks enabled give real-time information on possible interactions at the time of ordering, thus minimizing the potential for adverse events or pharmacy call-backs. With many patients taking nutritional supplements, having medications provided from multiple providers or allergies to certain medications, having a drug interaction check provides better clinical decisions by displaying alerts on drug–allergy, drug–frequency, drug–drug, drug–renal function, drug–laboratory, and drug–age, which can improve the safety and effectiveness of medication (USDHHS, ONC, n.d.c).

Core Measure #3
Maintain Problem List

Maintain an up-to-date problem list of current and active diagnoses.
Measure

More than 80% of all unique patients seen by the EP have at least one entry or an indication that no problems are known for the patient recorded as structured data.

Exclusion

None.

Clinical Relevance

Accurate, active problem lists have been a mainstay of efficient and effective primary care for years, providing a fast overview of a patient’s history. Now with EHRs, not only is problem list maintenance easier, but also an EHR provides this information to all of your clinical staff, thus making their time with the patient much more efficient (USDHHS, ONC, n.d.c).

The problem list is one example of structured data that will be shared between providers to guide and inform them about the patients who are referred to them for care (Rippen et al., 2013).

Core Measure #4
Generate and Transmit Permissible Prescriptions Electronically (eRx)

Measure

More than 40% of all permissible prescriptions written by the EP are transmitted electronically using certified EHR technology.

Exclusion

Any provider who writes fewer than 100 prescriptions during the EHR reporting period would be excluded from this requirement.

EPs who do not have a pharmacy within their organization and there are no pharmacies that accept eRXs within 10 miles of the EPs practice location are excluded from this requirement.

Clinical Relevance

Electronic prescribing is a fast, efficient way to write/reorder, and transmit prescriptions. eRx has preset fields so all the required information for prescriptions are entered and automatically stored in the patient’s record for easy review during follow-up visits or for transitions to other providers. E-Prescribing increases overall patient satisfaction because the prescriptions can be automatically transmitted to a pharmacy of preference. Using an electronic system provides guided-dose algorithms to assist providers. Providers also have the opportunity to query a formulary to ensure that the drug selected is covered by the patient’s health plan to assist in reducing costs to the patient (USDHHS, ONC, n.d.c).

Core Measure #5
Active Medication List

Maintain active medication list.
Measure
More than 80% of all unique patients seen by the EP have at least one entry (or an indication that the patient is not currently prescribed any medication) recorded as structured data.

Exclusion
None.

Clinical Relevance
By entering medications into the EHR as structured reportable data, the information on the medication list is available for e-prescribing/CPOE and for the clinical decision support functions to work in the EHR. These functions can alert EPs to potential patient safety issues involving medications. The medication list can also be used to identify patients taking certain medications if there is a recall (Rippen et al., 2013).

Core Measure #6
Medication Allergy List
Maintain active medication allergy list.

Measure
More than 80% of all unique patients seen by the EP have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data.

Exclusion
None.

Clinical Relevance
Maintaining a list of known medication allergies for a patient is essential for safe patient care. Keeping this information stored in an EHR allows for easy review when prescribing new medications to a patient (USDHHS, ONC, n.d.c).

Core Measure #7
Record Demographics
Record all of the following demographics:
A. Preferred language
B. Gender
C. Race
D. Ethnicity
E. Date of birth

Measure
More than 50% of all unique patients seen by the EP have demographics recorded as structured data.
Exclusion
None.

Clinical Relevance
Effective practice management requires capturing accurate demographic information (name, address, sex, insurance, etc.). Maintaining the data is essential for accurate billing and provides an opportunity to look at your practice results in performance in terms of these demographic groups (i.e., age, sex, race, etc.; USDHHS, ONC, n.d.c).

In order to run reports and look at a patient population in a variety of ways, certain demographic information must be entered into the EHR as structured data. Preferred language is required for MU to determine how to communicate with patient and for educational materials to be provided. Race and ethnicity are also required data for MU. This data can be used to determine prevalence of a disease in patients of a particular race or ethnicity (Rippen et al., 2013).

Core Measure #8
Record Vital Signs
Record and chart changes in the following vital signs:
A. Height
B. Weight
C. Blood pressure
D. Calculate and display body mass index (BMI)
E. Plot and display growth charts for children 2–20 years, including BMI

Measure
For more than 50% of all unique patients age 2 and overseen by the EP, height, weight, and BP are recorded as structured data.

Exclusion
Any EP who either sees no patients 2 years or older or who believes that all three vital signs of height, weight, and BP of their patients have no relevance to their scope of practice.

Clinical Relevance
Information on vital signs can be used to display trends in vital signs over time, as well as to calculate the BMI and population growth charts in the EHR identifying patient with an elevated BMI. The National Heart, Blood and Lung Institute clinical guideline for obesity recommends an assessment of BMI at each patient encounter. With hypertension and diabetes rates, rising monitoring patient vital signs and managing these conditions are a high priority to improve population and public health and to reduce costs (Rippen et al., 2013).

Core Measure #9
Record Smoking Status
Record smoking status for patients 13 years old or older. This guideline applies to all specialties, even those that have not historically tracked this information and even
if it is not immediately obvious how it might be connected to their practices. “Smoking-related illness remains a significant cause of adverse health, and any interaction with a medical provider of any kind is a good opportunity to help patients stop smoking or to create correlating data about all types of illness and smoking” (Trotter & Uhlman, 2013, p. 104).

Measure
More than 50% of all unique patients 13 years old or older seen by the EP have smoking status recorded as structured data.

Exclusion
Any EP who sees no patients 13 years or older.

Clinical Relevance
Tobacco use and tobacco-related illness represents the single greatest health risk to patients in the United States. With clear and compelling evidence that provider interest in a patient’s tobacco use can be an important first step in durable cessation, the simple act of asking and recording a patient’s use of tobacco can have a profound benefit (CMS, 2013).

Core Measure #10
Clinical Quality Measures (CQMs)
Report ambulatory clinical quality measures to CMS. Reporting begins in Stage 1 with the tracking of key clinical conditions.

Quality health care is a high priority for the President, the USDHHS, and CMS. Quality measures are tools that help measure or quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality health care and/or that relate to one or more quality goals for health care. These goals include effective, safe, efficient, patient-centered, equitable, and timely care (USDHHS, ONC, n.d.c).

Currently there are two options for CQM reporting: MU attestation or the PQRS. PQRS has been using incentive payments to encourage EPs to report on specific quality measures. The program provides an incentive payment to practices with EPs, identified on claims by their Individual National Provider Identifier (NPI) and Tax Identification Number (TIN), or group practices participating in the group practice reporting option who satisfactorily report data on quality measure for covered Physician Fee Schedule services furnished to Medicare Part B Fee-for-Service beneficiaries (including Railroad Retirement Board and Medicare Secondary Payer; CMS, 2014). Providers can participate in both of these programs.

Measure
Successfully report to CMS ambulatory CQMs selected by CMS in the manner specified by CMS. This provides aggregate numerator, denominator, and exclusions through attestation to the state or federal government through the web-based reporting system. The specific measures for outpatient facilities are itemized in the list that
follows. Not all items have to be reported to be compliant. If you try to identify the heart of MU, you could locate it in the ability to answer all of the questions in the list. These questions have been identified as critical by the leading agencies involved in funding and researching health and health care. Having a large, concise, and accurate pool of data regarding these issues is the best chance we have to improve patient outcomes in the system. “Although the list is dense and filled with confusing terminology, it is important to spend a little time reviewing these questions and determining how your organization will need to change in order to be able to answer them” (Trotter & Uhlman, 2013, p. 105).

Exclusion
None.

Clinical Relevance
MU builds the foundation for future quality reporting, first by understanding the importance of capturing information in the EHR as structured data so that reporting from the EHR is possible, and second, by focusing the early CQMs to be reported to CMS on those health-related conditions that contribute to high health care costs and poor population health smoking and obesity (Rippen et al., 2013).

NQF 0421/PQRI 128
Title: Adult Weight Screening and Follow-Up
Description: Percentage of patients aged 18 years and older whose BMI was calculated in the past 6 months or during the current visit and was documented in the medical record, in addition to which, if the most recent BMI is outside parameters, a follow-up plan is documented.

NQF 0013
Title: Hypertension: Blood Pressure Measurement
Description: Percentage of patient visits for patients aged 18 or older with a diagnosis of hypertension who have been seen for at least two office visits with BP recorded.

NQF 0028
Title: Preventive Care and Screening Measure Pair: a. Tobacco Use Assessment, b. Tobacco Cessation Intervention
Description: a. Percentage of patients aged 18 years and older who have been seen for at least two office visits and who were queried about tobacco use one or more times within 24 months. b. Percentage of patients aged 18 years and older identified as tobacco uses within the past 24 months, who have been seen for at least two office visits, and who received cessation intervention.

NQF 0041/PQRI110
Title: Preventive Care and Screening, Influenza Immunization for Patients 50 years and older who received an influenza immunization during the flu season (September through February).
NQF 0024
*Title:* Weight Assessment and Counseling for Children and Adolescents
*Description:* Percentage of patients 2 to 17 years of age who had an outpatient visit with a Primary Care Physician (PCP) or obstetrician/gynecologist (OB/GYN) and who had evidence of BMI percentile documentation, counseling for nutrition, and counseling for physical activity during the measurement year.

NQF 0038
*Title:* Childhood Immunization Status
*Description:* Percentage of children 2 years of age who had four diphtheria, tetanus, and acellular pertussis (DTaP); three polio (IPV); one measles, mumps, and rubella (MMR); two H influenza type B (HiB); three hepatitis B (Hep B); one chicken pox (VZV); four pneumococcal conjugate (PCV); two Hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (fu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.

NQF 0059/PQRI 1
*Title:* Diabetes; Hemoglobin A1c Poor Control
*Description:* Percentage of patients 18 to 75 years of age with diabetes (Type 1 or Type 2) who had hemoglobin A1c > 9.0%.

NQF 0064/PQRI 2
*Title:* Diabetes; Low-Density Lipoprotein Cholesterol (LDL-C) Management and Control
*Description:* Percentage of patients 18 to 75 years of age with diabetes (Type 1 or Type 2) who had LDL-C < 100mg/dL.

NQF 0061/PQRI 3
*Title:* Diabetes: Blood Pressure Management
*Description:* Percentage of patients 18 to 75 years of age with diabetes (Type 1 or Type 2) who had blood pressure < 140/90 mm HG.

NQF 0081/PQRI 5
*Title:* Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure and LVSD (OLVEF 1t; 40%) who were prescribed ACE inhibitor or ARB therapy.

NQF 0070/PQRI 7
*Title:* Coronary Artery Disease (CAD): Beta-Blocker therapy for CAD Patients with Prior Myocardial Infarction (MI)
*Description:* Percentage of patients 18 years and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy.
NQF 0043/PQRI 111  
*Title:* Pneumonia Vaccination Status for Older Adults  
*Description:* Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine.

NQF 0031/PQRI 112  
*Title:* Breast Cancer Screening  
*Description:* Percentage of women 40 to 69 years of age who had a mammogram to screen for breast cancer.

NQF 0034/PQRI 113  
*Title:* Colorectal Cancer Screening  
*Description:* Percentage of adults 50 to 75 years of age who had appropriate screening for colorectal cancer.

NQF 0067/PQRI 6  
*Title:* Coronary Artery Disease: Oral Anti-Platelet Therapy for Patients With CAD  
*Description:* Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed oral anti-platelet therapy.

NQF 0083/PQRI 8  
*Title:* Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)  
*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD (LVEF < 40%) and who were prescribed beta-blocker therapy.

NQF 0105/PQRI 9  
*Title:* Anti-Depressant Medication Management: (a) Effective Acute Phase Treatment, (b) Effective Continuation Phase Treatment  
*Description:* The percentage of patients 18 years of age and older who were diagnosed with a new episode of major depression, treated with antidepressant medication, and who remained on an antidepressant medication treatment.

NQF 0086/PQRI 12  
*Title:* Primary Open Glaucoma (POAG): Optic Nerve Evaluation  
*Description:* Percentage of patients aged 18 years and older with a diagnosis of POAG who have been seen for at least two office visits who have an optic nerve head evaluation during one or more office visits within 12 months.

NQF 0088/PQRI 18  
*Title:* Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy  
*Description:* Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed that included
documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits within 12 months.

NQF 0089/PQRI 19
Title: Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care
Description: Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.

NQF 0047/PQRI 53
Title: Asthma Pharmacologic Therapy
Description: Percentage of patients aged 5 through 40 years with a diagnosis of mild, moderate, or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment.

NQF 0001/PQRI 64
Title: Asthma Assessment
Description: Percentage of patients aged 5 through 40 years with a diagnosis of asthma and who have been seen for at least two office visits, who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms.

NQF 0002/PQRI 66
Title: Appropriate Testing for Children with Pharyngitis
Description: Percentage of children 2 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic, and received a group A streptococcus (strep) test for the episode.

NQF 0387/PQRI 71
Title: Oncology Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer
Description: Percentage of female patients aged 18 years and older with Stage IC through IIIC, ER or PR positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period.

NQF 0385/PQRI 72
Title: Oncology Colon cancer: Chemotherapy for Stage III Colon Cancer Patients
Description: Percentage of patients aged 18 years and older with Stage IIIA through IIIC colon cancer who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy, or have previously received adjuvant chemotherapy within the 12-month reporting period.
NQF 0389/PQRI 102
Title: Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low-Risk Prostate Cancer Patients
Description: Percentage of patients, regardless of age, with a diagnosis of prostate cancer at low risk of recurrence receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy who did not have a bone scan performed at any time since diagnosis of prostate cancer.

NQF 0027/PQRI 115
Title: Smoking and Tobacco Use Cessation, Medical Assistance: a. Advising Smokers and Tobacco Users to Quit, b. Discussing Smoking and Tobacco Use Cessation Medications, c. Discussing Smoking and Tobacco Use Cessation Strategies
Description: Percentage of patients 18 years of age and older who were current smokers or tobacco users, who were seen by a practitioner during the measurement year, and who received advice to quit smoking or tobacco use or whose practitioner recommended or discussed smoking, or tobacco use cessation medications, methods, or strategies.

NQF0055/PQRI 117
Title: Diabetes Eye Exam
Description: Percentage of patients 18 to 75 years of age with diabetes (Type 1 or Type 2) who had a retinal or dilated eye exam or negative retinal exam (no evidence of retinopathy) by an eye care professional.

NQF 0062/PQRI 119
Title: Diabetes: Urine Screening
Description: Percentage of patients 18 to 75 years of age with diabetes (Type 1 or Type 2) who had a nephropathy screening test or evidence of nephropathy.

NQF 0056/PQRI 163
Title: Diabetes: Foot Exam
Description: the percentage of patients aged 18 to 75 years with diabetes (Type 1 or Type 2) who had a food exam (visual inspection, sensory exam with monofilament, or pulse exam).

NQF 0074/PQRI 197
Title: Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL Cholesterol
Description: Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed a lipid-lowering therapy (based on current ACC/AHA guidelines).

NQF 0084/PQRI 200
Title: Heart Failure (HF); Warfarin Therapy Patients With Atrial Fibrillation
Description: Percentage of all patients aged 18 years and older with a diagnosis of HF and paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy.

NQF 0073/PQRI 201
Title: Ischemic Vascular Disease (IVD): Blood Pressure Management
Description: Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous transluminal coronary angioplasty (PTCA) from January 1 through November 1 of the year prior to the measurement year, or who had diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and whose recent blood pressure is in control (<140/90 mm Hg).

NQF 0068/PQRI 204
Title: Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic
Description: Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous transluminal coronary angioplasty (PTCA) from January 1 through November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and who had documentation of use of aspirin or another antithrombotic during the measurement year.

NQF0004
Title: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement
Description: The percentage of adolescent and adult patients with a new episode of alcohol and other drug (AOD) dependence who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of the diagnosis and who initiated treatment and who had two or more additional services with an AOD diagnosis within 30 days of the initiation visit.

NQF 0012
Title: Prenatal Care: Screening for Human Immunodeficiency Virus (HIV)
Description: Percentage of patients, regardless of age, who gave birth during a 12-month period who were screened for HIV infection during the first or second prenatal care visit.

NQF 0014
Title: Prenatal Care: Anti-D Immune Globulin
Description: Percentage of D (Rh) negative, unsensitized patients, regardless of age, who gave birth during a 12-month period who received anti-D immune globulin at 26 to 30 weeks gestation.

NQF 0018
Title: Controlling High Blood Pressure
Description: The percentage of patients 18 to 55 years of age who had a diagnosis of hypertension and whose BP was adequately controlled during the measurement year.

NQF 0032
Title: Cervical Cancer Screening
Description: Percentage of women 21 to 64 years of age, who receive one or more Pap tests to screen for cervical cancer.
NQF 0033  
*Title:* Chlamydia Screening for Women  
*Description:* Percentage of women 15 to 24 years of age who were identified as sexually active and who had at least one test for Chlamydia during the measurement year.

NQF 0036  
*Title:* Use of Appropriate Medications for Asthma  
*Description:* Percentage of patients 5 to 50 years of age who were identified as having persistent asthma and were appropriately prescribed medication during the measurement year. Report three age stratifications (5–11 years, 12–50 years, and total).

NQF 0052  
*Title:* Low Back Pain: Use of Imaging Studies  
*Description:* Percentage of patients with a primary diagnosis of low back pain who did not have an imaging study (plain X-ray, MRI, CT scan) within 28 days of diagnosis.

NQF 0075  
*Title:* Ischemic Vascular Disease: Complete Lipid Panel and LDL Control  
*Description:* Percentage of patients 18 years of age and older who were discharge alive for myocardial infarction, coronary artery bypass graft, or percutaneous transluminal angioplasty from January 1 through November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease during the measurement year and the year prior to the measurement year and who had a complete lipid profile performed during the measurement year whose LDL-C < 100mg/dL.

NQF 0575  
*Title:* Diabetes: Hemoglobin A1c Control (< 8.0%)  
*Description:* “The percentage of patients 18 to 75 years of age with diabetes (Type 1 or Type 2) who had hemoglobin A1c < 8.0%” (Trotter & Uhlman, 2013, p. 105).

**Core Measure #11**  
**Clinical Decision Support (CDS)**

Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track compliance with that rule.  
CDS remains the holy grail of EHRs in many circles. It is an advanced concept where the system can apply logical conditions to known data points and make recommendations or present evidentiary advisements about possible diagnosis, treatment, and outcomes for the patient. CDS is a radical jump toward consistent and systematized care, which is still rare in the United States today. CDS is expected to play a larger and larger role as guidelines continue to expand in future years. This guideline provides enormous flexibility in compliance and sets a low bar, requiring the provider to implement only a single CDS rule, no matter how simplistic. This measure is an indicator to introduce facilities to the concept” (Trotter & Uhlman, 2013, p. 104).

When implemented successfully, CDS can assure that all patients in a practice receive appropriate and timely preventive services. The effective use of a CDS system
means patients get the right tests, the right medications, and the right treatment, particularly for chronic conditions (USDHHS, ONC, n.d.c).

**Measure**

Implement one CDS rule.

**Exclusion**

None.

**Core Measure #12**

**Electronic Copy of Health Information**

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

**Measure**

More than 50% of all patients who request an electronic copy of their health information are provided it within 3 business days.

**Exclusion**

Any EP that has no requests from patients or their agents for an electronic copy of patient health information during the EHR reporting period.

**Clinical Relevance**

Providing patients an electronic copy of their health information helps them and their caregivers to be more engaged in their care. In addition, when patients move or transfer physicians, they have the ability to bring that medical record with them, thereby providing clear and accurate notes, lab results, and medical images (USDHHS, ONC, n.d.c).

**Core Measure #13**

**Clinical Summaries**

Provide clinical summaries for patient for each office visit.

**Measure**

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

**Exclusion**

Any EP who has no office visits during the EHR reporting period.

**Clinical Relevance**

The Clinical Summary—which includes basic clinical information regarding the care provided, such as medication, upcoming appointments, or other instructions—affords better communication around pertinent health information. The summary is shared with both patients and family members to increase awareness of what occurred
during office visits and can be used to assist in care coordination (USDHHS, ONC, n.d.c).

**Core Measure #14**  
*Electronic Exchange of Clinical Information*  
Capability to exchange key clinical information (e.g., problem list, medication list, medication allergies, and diagnostic test results) among providers of care and patient-authorized entities electronically.

**Measure**  
Performed at least one test of certified EHR technology’s capacity to electronically exchange key clinical information.

**Exclusion**  
None.

**Clinical Relevance**  
The ability to exchange clinical information to referring or consulting providers is essential for effective and efficient coordinated care. Having the information in an electronic format makes the possibility of information exchange that much easier (USDHHS, ONC, n.d.c).

**Core Measure #15**  
*Protect Electronic Health Information*  
Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities.

**Measure**  
Conduct or review a security risk analysis in accordance with the requirements under Code of Federal Regulations (CFR) 45 CFR 164.308 (a)(1) and implement security updates as necessary and correct identified security deficiencies as part of its risk management process.

**Exclusion**  
None.

**Clinical Relevance**  
Safety and privacy of patient information is a priority. The security risk analysis draws attention to the security of electronic personal health information, in particular the confidentiality, integrity, and availability of the information (Rippen et al., 2013).
Menu Set Measures

Measure = data needed to meet the objective.
Five out of 10 menu set measures must be met.
Must include 1 public health initiative (#9 or 10).

Menu Set Measure #1
Drug Formulary Checks
Implement drug formulary checks.

Measure
The EP has enabled this functionality and has access to at least one internal formulary for the entire EHR reporting period.

Exclusion
Any EP who writes fewer than 100 prescriptions during the EHR reporting period.

Clinical Relevance
The drug formulary provides the EP with information regarding the patient’s health insurance coverage for medications, the availability of a generic alternative, and the patient’s co-pay or cost for the particular medication. Having access to this information might influence a patient’s medication preference (Rippen et al., 2013).

Menu Set Measure #2
Clinical Lab Test Results
Incorporate clinical lab test results into EHR as structured data.

Measure
More than 40% of all clinical lab test results ordered by the EP during the EHR reporting period whose results are either in a positive-negative or numerical format are incorporated in certified EHR technology as structured data.

Exclusion
An EP who orders no lab tests whose results are either in a positive-negative or numeric format during the EHR reporting period.

Clinical Relevance
Having lab and test results in the patient’s record allows for ease of access and reference when and where it is needed. The availability of structured lab results within the EHR contributes to office efficiencies while also assisting providers in the ability to make real-time decision about the patient’s care (USDHHS, ONC, n.d.c).
**Menu Set Measure #3**

*Patient Lists*

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

*Measure*

- Generate at least one report listing patients of the EP with a specific condition.

*Exclusion*

- None.

*Clinical Relevance*

- Using an EHR with structured data and reporting capabilities opens the door to identifying patients who share a common diagnosis, need preventive cancer screening, or require immunizations. “Having the capability to generate patients lists is the foundation for the beginning to manage populations, practice medicine more proactively, and improve the health of populations” (Rippen et al., 2013, p. 153).

**Menu Set Measure #4**

*Patient Reminders*

- Send reminders to patients per patient preference for preventive or follow-up care.

*Measure*

- More than 20% of all patients 65 years or older or 5 years old or younger were sent an appropriate reminder during the EHR reporting period.

*Exclusion*

- An EP who has no patients 65 years old or older or 5 years old or younger with records maintained using certified EHR technology.

*Clinical Relevance*

- “Patients are accustomed to being reminded about pending appointments, whether by a phone call or a reminder call from an automated call system” (Rippen et al., 2013, p. 154). Patient reminders can be established within EHR systems to assist practices in managing their patient population. Practices can remind patients about upcoming appointments and preventive care needs (e.g., cancer screenings, flu shots). By managing their patient populations, practices are better able to improve the health and health care of their patients (USDHHS, ONC, n.d.c).

**Menu Set Measure #5**

*Patient Electronic Access*

- Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, and allergies) within 4 business days of the information being available to the EP.
Measure
At least 10% of all unique patients seen by the EP are provided timely (available technology) electronic access to their health information subject to the EP’s discretion to withhold certain information.

Exclusion
Any EP that neither orders nor creates lab tests or information that would be contained in the problem list, medication list, medication allergy list (or other information), as listed at 45 CFR 170.304(g) during the EHR reporting period.

Clinical Relevance
The portal is an important tool to involve patients in their care and to give them electronic access to their health information. This access also affords family members or other healthcare providers information regarding medication refills, scheduling appointments, and patient education. For practices with a patient portal, choosing this measure makes sense, especially if their portal is going well (Rippen et al., 2013, p. 159; USDHHS, ONC, n.d.c).

Menu Set Measure #6
Patient Specific Education Resources
Use certified EHR technology to identify patient-specific education resources and provide those resources to the patient if appropriate.

Measure
More than 10% of all unique patients seen by the EP are provided patient-specific education resources.

Exclusion
None.

Clinical Relevance
Patient-specific education is designed to help medical professionals and patients make better decisions about their health and links to relevant information with extensive articles, videos, and images for the patient. Patient-centered education allows for patients to better understand their health and make informed lifestyle adjustments (USDHHS, ONC, n.d.c).

Menu Set Measure #7
Medication Reconciliation
The EP who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation.

Measure
The EP performs medication reconciliation for more than 50% of transitions of care in which the patient is transitioned into the care of the EP.
Exclusion
An EP who was not the recipient of any transitions of care during the EHR reporting period.

Clinical Relevance
This measure addresses the need for medication reconciliation, especially when a patient transitions from an outside provider or facility back into the care of the EP. Patient safety is at risk when providers of care are prescribing new medications and are unaware of the other medications a patient is also taking.

To satisfy the medication reconciliation measure, the provider must be aware that a patient is transitioning from another provider or facility. Ideally, the patient is scheduled for an appointment within 3 to 10 days of discharge or transition to reconcile the medications that the patient is currently taking so as to address any gaps in understanding, to make changes that may be necessary, and to update the patient’s medication list through medication reconciliation (Rippen et al., 2013).

Menu Set Measure #8
Transition of Care Summary
The EP who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care should provide summary care record for each transition of care or referral.

Measure
The EP who transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than 50% of transitions of care and referrals.

Exclusion
An EP who neither transfers a patient to another setting nor refers a patient to another provider during the EHR reporting period.

Clinical Relevance
A transition of care summary, also known as a discharge summary in some circumstances, provides essential clinical information for the receiving care team and helps organize final clinical and administrative activities for the transferring care team. This summary helps ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location (USDHHS, ONC, n.d.c).

Menu Set Measure #9
Immunization Registries Data Submission
Capability to submit electronic data to immunization registries or immunization information systems and actual submission according to applicable law and practice
Measure
Performed at least one test of certified technology’s capacity to submit electronic data to immunization registries and follow-up submission if the test is successful (unless none of the immunization registries to which the EP submits such information has the capacity to receive the information electronically).

Exclusion
An EP who administers no immunizations during the EHR reporting period or where no immunization registry has the capacity to receive the information electronically.

Clinical Relevance
Submitting data to immunization registries makes information easily available for other providers and institutions, such as schools. When done throughout the community, it gives providers and colleagues historical immunization data for queries meant to help keep patient vaccinations up to date. This ultimately contributes to the improvement of public health by reducing vaccine-preventable diseases and overvaccination (USDHHS, ONC, n.d.c).

Menu Set Measure #10
Systematic Surveillance Data Submission
Capability to submit electronic syndromic surveillance data to public health agencies (PHAs) and actual submission according to applicable law and practice.

Measure
Performed at least one test of certified EHR technology’s capacity to provide electronic syndromic surveillance data to PHAs and follow-up submission if the test is successful (unless none of the PHAs to which an EP submits such information has the capacity to receive the information electronically).

Exclusion
An EP who does not collect any reportable syndromic information on patients during the EHR reporting period or does not submit such information to any public health agency that has the capacity to receive the information electronically.

Clinical Relevance
Syndromic surveillance data submission is used to improve population health by supporting timely and effective prevention and response. Electronic health data transactions and large public health databases can be used for epidemiological analyses and this surveillance information is given to public health decision makers for use in monitoring and mitigating public health threats. The use of near patient data and statistical tools enables public health authorities to provide timely assessments of population health that assists with determining and assessing the implementation of public health action (USDHHS, ONC, n.d.c).
Stage 2: Eligible Professional MU Core and Menu Measures

To demonstrate MU under Stage 2 criteria, EPs must meet 17 core objectives and 3 menu objectives that they select from a total list of 6, or a total of 20 core objectives.

Core Measure #1
CPOE for Medication, Laboratory and Radiology Orders
Use of CPOE for medication, laboratory, and radiology orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local, and professional guidelines.

Measure
More than 60% of medication, 30% of laboratory, and 30% of radiology orders created by the EP during the EHR reporting period are recorded using CPOE.

Exclusion
Any EP who writes fewer than 100 medication, radiology, or laboratory orders during the EHR reporting period

Core Measure #2
e-Prescribing (e-RX)
Generate and transmit permissible prescriptions electronically (e-RX).

Measure
More than 50% of all permissible prescriptions, or all prescriptions, written by the EP are queried for a drug formulary and transmitted electronically using Certified Electronic Health Record Technology (CEHRT).

Exclusion
Any EP who:
• Writes fewer than 100 permissible prescriptions during the EHR reporting period.
• Does not have a pharmacy within the organization and there are no pharmacies that accept electronic prescriptions within 10 miles of the EP’s practice location at the start of the EHR reporting period.

Core Measure #3
Record Demographics
Record the following demographics: preferred language, sex, race, ethnicity, date of birth.

Measure
More than 80% of all unique patients seen by the EP have demographics recorded as structured data.
Core Measure #4
Record Vital Signs
Record and chart changes in the following vital signs: height/length and weight (no age limit); blood pressure (ages 3 and over); calculate and display BMI; and plot and display growth charts for patient 0–20 years, including BMI.

Measure
More than 80% of all unique patients seen by the EP have blood pressure (for patients age 3 and over only) and/or height and weight (for all ages) recorded as structured data.

Exclusion
Any EP who:
• Sees no patients age 3 or older is excluded from reporting BP.
• Believes that all three vital signs of height/length, weight and BP have no relevance to the scope of practice is excluded from recording them.
• Believes that height/length and weight are relevant to the scope of practice, but that BP is not is excluded from recording blood pressure.
• Believes that BP is relevant to the scope of practice but that height/length and weight are not is excluded from recording height/length and weight.

Core Measure #5
Record Smoking Status
Record smoking status for patients 13 years old or older.

Measure
More than 80% of all unique patients 13 years old or older seen by the EP have smoking status recorded as structured data.

Exclusion
Any EP that neither sees nor admits any patient 13 years old or older.

Core Measure #6
Clinical Decision Support Rule
Use clinical decision support to improve performance on high-priority health conditions.

Measure 1:
Implement five CDS interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period. Absent four clinical quality measures related to an EP's scope of practice or patient population, the CDS interventions must be related to high-priority health conditions.
Measure 2:
The EP has enabled and implemented the functionality for drug–drug and drug–allergy interaction checks for the entire EHR reporting period.

Exclusion
For the second measure, any EP who writes fewer than 100 medication orders during the EHR reporting period.

Core Measure #7
Patient Electronic Access
Provide patient the ability to view online, download, and transmit their health information within 4 business days of the information being available to the EP.

Measure 1:
More than 50% of all unique patients seen by the EP during the EHR reporting period are provided timely (available to the patient within 4 business days after the information is available to the EP) online access to their health information.

Measure 2:
More than 5% of all unique patients seen by the EP during the EHR reporting period (or their authorized representatives) view, download, or transmit to a third party their health information.

Exclusion
Any EP who:
- Neither orders nor creates any information except for “patient name” and “provider’s name and office contact information” may exclude both measures.
- Conducts 50% or more of his or her patient encounters in a county that does not have 50% or more of its housing units with 3Mbps broadband availability, according to the latest information available from the Federal Communications Commission (FCC) on the 1st day of the EHR reporting period may exclude only the second measure.

Core Measure #8
Clinical Summaries
Provide clinical summaries for patient for each office visit.

Measure
Clinical summaries provided to patient or patient-authorized representative within 1 business day for more than 50% of office visits.

Exclusion
Any EP who has no office visits during the EHR reporting period.
Core Measure #9
Protect Electronic Health Information

Protect electronic health information created or maintained by the EHR technology (CEHRT) through the implementation of appropriate technical capabilities.

Measure
Conduct or review a security risk analysis in accordance with the requirements under 45 CFR 164.308(a)(1), including addressing the encryption/security of data stored in CEHRT in accordance with requirements under 45 CFR 164.132(a)(2)(iv) and 45 CFR 164.306(d)(3). And implement security updates as necessary and correct identified security deficiencies as part of the provider’s risk management process for EPs.

Exclusion
None.

Core Measure #10
Clinical Lab Test Results
Incorporate clinical lab test results into CEHRT as structured data.

Measure
More than 55% of all clinical lab tests results ordered by the EP during the EHR reporting period whose results are either in a positive-negative or numerical format are incorporated in the CEHRT as structured data.

Exclusion
Any EP who orders no lab tests where results are in either a positive-negative affirmation or numeric format during the EHR reporting period.

Core Measure #11
Patient Lists
Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach.

Measure
Generate at least one report listing patients of the EP with a specific condition.

Exclusion
None.

Core Measure #12
Preventive Care
Use clinically relevant information to identify patients who should receive reminders for preventive or follow-up care and send to those patients the reminders, per patient preference.
Measure
More than 10% of all unique patients who have had two or more office visits with the EP within the 24 months before the beginning of the EHR reporting period were sent a reminder, per patient preference when available.

Exclusion
Any EP who has had no office visits in the 24 months before the EHR reporting period.

Core Measure #13
Patient-Specific Education Resources
Use clinically relevant information from CEHRT to identify patient-specific education resources, and provide those resources to the patient.

Measure
Patient-specific education resources identified by CEHRT are provided to patients for more than 10% of all unique patients with office visits seen by the EP during the EHR reporting period.

Exclusion
Any EP who has no office visits during the EHR reporting period.

Core Measure #14
Medication Reconciliation
The EP who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation.

Measure
The EP who performs medication reconciliation for more than 50% of transitions of care in which the patient is transitioned into the care of the EP.

Exclusion
Any EP who was not the recipient of any transitions of care during the EHR reporting period.

Core Measure #15
Summary of Care
The EP who transitions a patient to another setting of care or provider of care or refers patient to another provider of care should provide summary care record for each transition of care or referral.
**Measures**

**Measure 1:**
The EP who transitions or refers his or her patient to another setting of care or provider of care provides a summary of care record for more than 50% of transitions of care and referrals.

**Measure 2:**
The EP who transitions or refers his or her patient to another setting of care or provider of care provides a summary of care record for more than 10% of such transitions and referrals either (a) electronically transmitted using CEHRT to a recipient or (b) where the recipient receives the summary of care record via exchange facilitated by an organization that is a Nationwide Health Information Network (NwHIN) Exchange participant or in a manner that is consistent with the governance mechanism that ONC establishes for the NwHIN.

**Measure 3:**
An EP must satisfy one of the following criteria:

- Conducts one or more successful electronic exchanges of a summary of care document, as part of which is counted “Measure 2” (for EPs the measure at s495.6 (j)(14)(ii)(B) with a recipient who has EHR technology that was developed or designed by a different EHR technology developer than the sender’s EHR technology certified to 45 CFR 170.314(b)(2).

- Conducts one or more successful tests with the CMS designated test EHR during the EHR reporting period.

**Exclusion**
Any EP who transfers a patient to another setting or refers a patient to another provider less than 100 times during the EHR reporting period is excluded from all three measures.

**Core Measure #16**
**Immunization Registries Data Submission**
Capability to submit electronic data to immunization registries or immunization information systems except where prohibited and in accordance with applicable law and practice.

**Measure**
Successful ongoing submission of electronic immunization data from CEHRT to an immunization registry or immunization information system for the entire EHR reporting period.
Exclusion

Any EP that meets one or more of the following criteria may be excluded from this objective:

- The EP does not administer any of the immunizations to any of the populations for which data are collected by his or her jurisdiction’s immunization registry or immunization information system during the EHR reporting period;

- The EP operates in a jurisdiction for which no immunization registry or immunization information system is capable of accepting the specific standards required for CEHRT at the start of the EHR reporting period;

- The EP operates in a jurisdiction where no immunization registry or immunization information system provides information timely on capability to receive immunization data; or

- The EP operates in a jurisdiction for which no immunization registry or immunization information system that is capable of accepting the specific standards required by CEHRT at the start of the EHR reporting period can enroll additional EPs.

Core Measure #17

Use Secure Electronic Messaging

Use secure electronic messaging to communicate with patients on relevant health information.

Measure

A secure message was sent using the electronic messaging function of CEHRT by more than 5% of unique patients (or their authorized representatives) seen by the EP during the EHR reporting period.

Exclusion

Any EP who has no office visits during the EHR reporting period, or any EP who conducts 50% or more of his or her patient encounters in a county that does not have 50% or more of its housing units with 3Mbps broadband availability, according to the latest information available from the FCC on the 1st day of the EHR reporting period.

Menu Set Measures

(3 out of 6 required)

Menu Set Measure #1

Syndromic Surveillance Data Submission

Capability to submit electronic syndromic surveillance data to PHAs except where prohibited and in accordance with applicable law and practice.
Measure
Successful ongoing submission of electronic syndromic surveillance data from CEHRT to a PHA for the entire EHR reporting period.

Exclusion
Any EP that meets one or more of the following criteria may be excluded from this objective:

- The EP is not in the category of providers that collect ambulatory syndromic surveillance information on their patients during the EHR reporting period;
- The EP operates in a jurisdiction for which no PHA is capable of receiving electronic syndromic surveillance data in the specific standards required by CEHRT at the start of their EHR reporting period;
- The EP operates in a jurisdiction where no PHA provides information timely on capability to receive syndromic surveillance data; or
- The EP operates in a jurisdiction for which no PHA that is capable of accepting the specific standards required by CEHRT at the start of the EHR reporting period can enroll additional EPs.

Menu Set Measure #2
Electronic Notes
Record electronic notes in patient records.

Measure
Enter at least one electronic progress note created, edited, and signed by an EP for more than 30% of unique patients with at least one office visit during the EHR reporting period. The text of the electronic note must be text searchable and may contain drawings and other content.

Exclusion
None.

Clinical Relevance
Providers are encouraged to electronically record progress notes to provide access to the most well-rounded patient information available to support continuity of care across patient care settings. Narrative entries in the progress note are an important component of patient records and complement data captured in defined structured fields; together, these components create a more complete picture of the patient’s status and can be used to track patient progress and sharing of information across care settings (USDHHS, ONC, n.d.c).
Menu Set Measure #3

*Imaging Results*

Imaging results consisting of the image itself and any explanation or other accompanying information are accessible through CEHRT.

**Measure**

More than 10% of all tests whose result is one or more images ordered by the EP during the EHR reporting period are accessible through CEHRT.

**Exclusion**

Any EP who orders less than 100 tests whose result is an image during the EHR reporting period, or any EP who has no access to electronic imaging results at the start of the EHR reporting period.

Menu Set Measure #4

*Family Health History*

Record patient family history as structured data.

**Measure**

More than 20% of all unique patients seen by the EP during the EHR reporting period have a structured data entry for one or more first-degree relatives.

**Exclusion**

Any EP who has no office visits during the EHR reporting period.

**Clinical Relevance**

Capturing family health history can improve efficiencies by minimizing the collection of information across settings. This information can be used to establish clinical decision support interventions for screening and prevention of chronic conditions based upon patient risk indicators, contributing to reduced costs and improved population health (USDHHS, ONC, n.d.c).

Menu Set Measure #5

*Report Cancer Cases*

Capability to identify and report cancer cases to a public health central cancer registry, except where prohibited and in accordance with applicable law and practice.

**Measure**

Successful and ongoing submission of cancer case information from CEHRT to a public health central cancer registry for the entire EHR reporting period.

**Exclusion**

Any EP that meets at least one of the following criteria may be excluded from this objective:

- The EP does not diagnose or directly treat cancer;
• The EP operates in a jurisdiction for which no PHA is capable of receiving electronic cancer case information in the specific standards required for CEHRT at the beginning of their EHR reporting period;

• The EP operates in a jurisdiction where no PHA provides information timely on capability to receive electronic cancer case information; or

• The EP operates in a jurisdiction for which no PHA that is capable of receiving electronic cancer case information in the specific standards required for CEHRT at the beginning of their EHR reporting period can enroll additional Eps.

Clinical Relevance

Providers reporting to cancer registries can assist in reducing the underreporting of cancer cases primarily in the outpatient setting. Facilitating electronic reporting either automatically or upon verification by providers can address this barrier by identifying reportable cancer cases and treatments. This information can be used to identify population trends such as the identification of underlying risk factors or treatments that may influence quality of life or survival (USDHHS, ONC, n.d.c).

Menu Set Measure #6

Report Specific Cases

Capability to identify and report specific cases for a specialized registry (other than a cancer registry), except where prohibited and in accordance with applicable law and practice.

Measure

Successful ongoing submission of specific case information from CEHRT to a specialized registry for the entire EHR reporting period.

Exclusions

Any EP that meets at least one of the following criteria may be excluded from this objective:

• The EP does not diagnose or directly treat any disease associated with a specialized registry sponsored by a national specialty society for which the EO is eligible, or the PHAs in his or her jurisdiction;

• The EP operates in a jurisdiction for which no specialized registry sponsored by a PHA or by a national specialty society for which the EP is eligible is capable of receiving electronic specific case information in the specific standards required by CEHRT at the beginning of the EHR reporting period;

• The EP operates in a jurisdiction where no PHA or national specialty society for which the EP is eligible provides information timely on capability to receive information into their specialized registries; or
• The EP operates in a jurisdiction for which no specialized registry sponsored by a PHA or by a national specialty society for which the EP is eligible that is capable of receiving electronic specific case information in the specific standards required by CEHRT at the beginning of the EHR reporting period can enroll additional EPs.

Clinical Relevance

Providers reporting to registries can assist in accessing information about the public’s health. These registries can assist providers in evaluating the health status of their patients, facilitate interventions for prevention and screening, and provide access to PHAs to better care for and improve the population’s health (USDHHS, ONC, n.d.c).

Stage 3: Meaningful Use

Stage 3 of the CMS EHR Incentive Program is scheduled to begin in 2016, but the rule has not been finalized. Policy and Standards committees are developing recommendations to continue to expand MU objectives to improve healthcare outcomes.

The HIT Policy Committee’s MU Workgroup has been working on Stage 3. The workgroup will make recommendations to the HIT Policy Committee on how to define MU in the short and long term, the way in which EHRs can support MU, and how providers can demonstrate meaningful use.

As the HIT Policy and HIT Standards Committees agree on recommendations, the latter are submitted to the ONC. One can keep up with the committee recommendation on HealthIT.gov (HITECHAnswers, 2014).
PUTTING MEANINGFUL USE INTO PRACTICE

The decisions made during the implementation and meaningful use of an EHR will dramatically affect both the financial and practice workflow of a provider’s practice. It is critical not only that these decisions be guided by the needs and nature of the practice but also that data can be captured as part of the assessment process covered below.

WHAT TO DO: Assess the Goals of the Practice and the Population of Patients Served

To effectively position the practice for successful outcomes, both clinical and financial, four aspects of a practice must be assessed: practice goals, practice characteristics, patient population, and business characteristics. It is the evaluation of each of these, as a practice, that will serve to guide EHR selection and implementation decisions (e.g., CDS focus), MU-related decisions (e.g., CQM selection), and business decisions (e.g., new services; Rippen et al., 2013).

Practice Goals and Characteristics

It is important for your practice to clearly articulate goals for the short and long term. It is beneficial to understand individual goals from other providers, clinical staff, and nonclinical staff in the context of the provider’s practice. Also important is the specialty nature of the practice. By confirming and collecting this information, you can gain insights into the practice that will inform decisions relevant to the business, EHR selection and implementation, and change management.

Patient Population

In order to more strategically make decisions relevant to EHR selection, EHR tool deployment (e.g. CDS) and CQM selection, it is critical that you understand the nature of your patient population. Gather as much information about your patients as is readily accessible. Information can be obtained through a variety of sources, such as billing, practice management systems, insurer reports, and EHRs (if implemented).

What is the age distribution? What are the most common chief complaints? Chronic conditions? Procedures/orders? While collecting and evaluating the data about the patients seen by the practice, you should document information about the data:

- Data source (e.g., billing)
- How difficult or easy to obtain information
- Currency of the data
- Quality of the data
- Format (electronic International Classification of Diseases [ICD]-9 code)
- Ability to support analysis (e.g., can it be exported to reporting tools such as Microsoft Excel®)
- Gaps
**Business Characteristics**

Your practice should also assess business aspects, such as payer-negotiated rates, payer mix, services offered, impact of pay for performance, and staffing. This assessment is important because it can help inform the financial effect of changes such as adding services, increasing efficiencies, or improving outcomes (Rippen et al., 2013).

**Assessing Workflow**

Any time one makes a change in their practice, especially when implementing HIT, the workflow associated with clinical and practice management processes will change. Regardless of the size of the clinic/practice, management should assess the current and anticipated workflows.

Workflow is the sequence of physical and mental tasks performed by various people with and between work environments. It can occur at several levels (one person, between people, across organizations) and can occur sequentially or simultaneously. By understanding workflow and preparing for changes to them throughout the planning and implementation process, a clinic is better prepared for the workflow changes post-implementation (USDHHS, AHRQ, n.d.).

There are many ways to assess workflow. In a practice it might start with the patient’s arrival for the visit and include all the steps until they check out. This information can be captured in several ways. Each member of the staff could be interviewed regarding his or her job duties and could be asked to fill out a job task diary. From this, data flowcharts can be developed and then assessed for the necessary changes that may need to occur once the new IT is in place USDHHS, AHRQ, n.d.).

For a toolkit to assist with this assessment, see AHRQ, http://healthit.ahrq.gov/health-it-tools-and-resources/workflow-assessment-health-it-toolkit

**Guide to Privacy and Security of Health Information**

Ensuring privacy and security of health information, including information in EHRs, is a key component to building the trust required to realize the potential benefits of electronic HIE. If individuals and other participants in a network lack trust in electronic exchange of information due to the perceived or actual risks to electronic health information or the accuracy and completeness of such information, it may affect their willingness to disclose necessary health information and could have life-threatening consequences (USDHHS, ONC, n.d.a)

**Conducting a Security Risk Analysis**

Conducting or reviewing a security risk analysis to meet the standards of the Security Rule of HIPPA of 1996 is included in the MU requirements of the Medicare and Medicaid EHR Incentive Programs. Eligible professionals must conduct a security risk analysis in both Stage 1 and Stage 2 of MU to ensure the privacy and security of their patients’ protected health information (PHI; CMS, 2013).
Your practice, not your EHR vendor, is responsible for taking the steps needed to protect the confidentiality, integrity and availability of health information in your EHR and comply with the HIPAA Rules and CMS’s MU requirements (USDHHS, ONC, n.d.a, n.d.b, n.d.c).

Because today many patients’ PHI is stored electronically, the risk of a breach of their electronic protected health information (e-PHI) is very real. There is no single method or best practice that guarantees compliance, but most risk analysis and risk management processes have steps in common. The following are some considerations as you conduct your risk analysis:

- Review the existing security infrastructure in your medical practice in light of legal requirements and industry best practices.
- Identify potential threats to patient privacy, and security; assess the impact on the confidentiality, integrity, and availability of your e-PHI.
- Prioritize risks based on the severity of their impact on your patients and practice (CMS, 2013).

“Risk analysis is an ongoing process that should provide your practice with a detailed understanding of the risks to the confidentiality, integrity, and availability of e-PHI. HIPAA requires that covered entities “implement policies and procedures to prevent, detect, contain and correct security violations by conducting “an accurate and thorough assessment of the potential risks and vulnerabilities to the confidentiality, integrity and availability of e-PHI held by the [organization]” (USDHHS, ONC, n.d.a, p. 10).

“As a covered healthcare provider, you ultimately retain responsibility for HIPAA compliance, including the security risk analysis. There are several options for completing the risk analysis, including enlisting the assistance of the Regional Extension Center (REC) staff, hiring an outside professional, or doing it yourself, but whichever method you choose, your direct involvement will be required” (USDHHS, ONC, n.d.a, p. 10).

The ONC’s RECs, located in every region of the country, serve as a support and resource center to assist providers in EHR implementation and HIT needs. As trusted advisors, RECs “bridge the technology gap” by helping providers navigate the EHR adoption process from vendor selection and workflow analysis to implementation and MU (HealthIT.gov, 2013).

Create an Action Plan

Your action plan will involve a review of your electronic health information system to correct any processes that make your patients’ information vulnerable. Make sure your analysis examines the risks specific to your practice. For example, how do you store patient information—on an EHR system in your office or on an Internet-based system? Each scenario carries different potential risks (CMS, 2013). The plan should have the following components: (a) administrative, physical, and technical safeguards; (b) policies and procedures; and (c) organizational standards. Often basic security measures can be highly effective and affordable (USDHHS, ONC, n.d.a).
Your risk analysis may also reveal that you need to update your system software, change the workflow processes or storage methods, review and modify policies and procedures, schedule additional training for your staff, or take other necessary corrective action to eliminate identified security deficiencies (CMS, 2013).

Manage and Mitigate Risks

This step is focused on implementing the action plan, especially in three parts:

- Information security setting in the EHR
- Written policies and procedures
- Continuous monitoring of your security infrastructure

The goal is to protect patient information through ongoing efforts to identify, assess, and manage risks (USDHHS, ONC, n.d.a).

Education and Training

To safeguard patient information, your workforce must know how to implement your policies, procedures, and security audits. HIPAA requires you as a provider to train your workforce (employees, volunteers, trainees, and contractors serving on your workforce) on your policies and procedures. Your staff must receive formal training on breach notification.

Your practice may formally educate and train your workforce at least once a year and when your practice changes policies or procedures (USDHHS, ONC, n.d.a).

Communicate With Patients

Patients may be concerned about confidentiality and security of their health information in an EHR. Emphasize the benefits of EHRs to them as patients, perhaps using consumer education handouts that others have developed. Reassure them that you have a system to proactively protect their health information privacy. Good patient relations also mean that you have policies and procedures for communication with patients and caregivers if a breach of unsecured PHI occurs (USDHHS, ONC, n.d.a).
REFERENCES CITED


