How can my organization drive from meaningful to exceptional?

ARRA and Meaningful Use

Driving from Meaningful to Exceptional

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SIEMENS

The route beyond meaningful use to the delivery of exceptional patient care services.

Achieving meaningful use of healthcare IT is part of a journey, not the destination. The ultimate goal is the management and delivery of exceptional patient care services. Siemens is helping healthcare organizations navigate the route from understanding the new rules, to meeting the requirements and setting new standards of excellence.

The Health Information Technology for Economic and Clinical Health Act (HITECH) provisions of The American Recovery and Reinvestment Act (ARRA) have the potential to drive improvements across the healthcare continuum. The latest rules present potential speed bumps and challenging terrain ahead:

- Centers for Medicare & Medicaid Services (CMS) released the Notice of Proposed Rule Making (NPRM) on the definition of meaningful use and associated topics.
- The Office of the National Coordinator (ONC) released the Interim Final Rule (IFR) on the standards and certification criteria associated with the achievement of meaningful use. The final rule is expected to be published Spring 2010.
- An additional rule defining the ARRA Certification Process is expected to be published before the end of February 2010.

While HITECH incentives are enticing, they are in themselves insufficient to mobilize the adoption and assimilation required to reach meaningful use in the required time frame. In line with HITECH's goals to drive improvements in quality while reducing the costs of healthcare delivery, Siemens is positioned to help providers achieve specific metrics that are important to individual organizations while addressing meaningful use requirements.

We are committed to helping providers do more than meet the requirements for incentives provided by HITECH. We can help you drive beyond meaningful to the exceptional.

Guiding and Informing Policy

Well before the passing of the HITECH provisions of ARRA, Siemens served as an influential advocate for advancing healthcare through the innovative use of health information technology. Siemens participates in key groups responsible for defining standards and policies related to ARRA: the HIT Policy Committee – Meaningful Use Workgroup and the HIT Standards Committee – Clinical Operations Workgroup. Today, as valued participants in the U.S. Department of Health and Human Services HIT Policy Committee, these leaders have been actively sought by the Committee in the development of key policy provisions of ARRA-HITECH.

The counsel provided to such organizations reflects close collaboration with Siemens customers, whose real-world experiences contribute immeasurably to ensuring that the objectives sought by the legislation are achievable and consistent with the best interests of patients. By working directly with customers to gather their views on policy direction, we help to make the healthcare provider's voice heard in the rule-making process, substantiating recommendations with customer evidence and suggestions. The new proposed regulations for ARRA reflect some of these contributions.

Our collaboration in such workgroups also helps our product developers translate policy decisions into our agile solution design workstream to make sure those solutions meet customer needs. It further enables us to educate our customers about relevant government initiatives, to help them understand the net impact of new regulations and what they mean to their respective IT plans.

In addition, Siemens is represented in the Certification Commission for Healthcare Information Technology (CCHIT), CCHIT committees, HITSP committees, and standards organizations such as HL7 and X12. Siemens experts contribute to these groups as board members, chairpersons, co-chairs, and general members. Our participation, along with our customers' feedback, enables Siemens to present realistic recommendations for standards improvements that are essential for cost reduction and enhanced interoperability across disparate systems.

ARRA-HITECH was passed because our country recognizes the positive impact information technology can have on the management and delivery of healthcare services. Many in the industry expect that healthcare IT will be an important infrastructure component for any future healthcare reform initiative. Our goal is to seize the momentum contributed by ARRA, to satisfy ARRA requirements and extend much farther – helping our customers drive beyond meaningful use to exceptional performance.

Flexible Financing for ARRA

Siemens offers a series of flexible financing solutions to help healthcare providers pursue meaningful use objectives. Featuring zero-percent interest terms for qualified customers, the solutions enable organizations to defer up-front payments associated with their technology investment while meeting criteria for future government incentive monies.

To provide the greatest possible range of choices for customers, Siemens offers solutions from Siemens Financial Services, Inc. as well as from selected partners, including IBM Global Financing and 3-D Financial Services. These options allow customers to choose a customized financing solution that matches their individual technology acquisition road maps, business strategies, financial profiles, and technology needs.

By bridging the gap between the project implementation and the receipt of ARRA incentives, Siemens will be providing you with an option that allows you to optimize your cash flow while maximizing return on investment.

A Path toward Meaningful Use

Tools to get you there.

Clinical Solutions

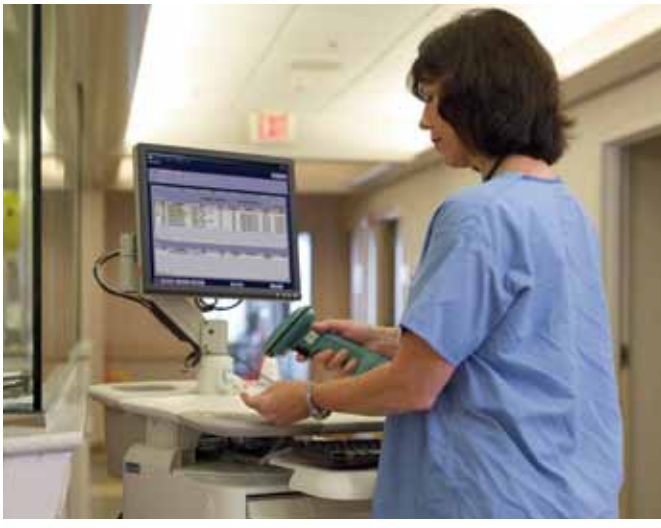
Improving performance requires an awareness of your current situation in terms of HIT and your ultimate, chosen destination. As such, transforming today's healthcare delivery depends on the successful use of HIT to measure and improve performance, ultimately enabling the healthcare system as a whole to not only reach but also exceed our national priorities and goals.

With this in mind, Siemens clinical IT solutions are well positioned to help our customers transform healthcare delivery. Key electronic health record capabilities such as CPOE, clinical decision support, clinical reporting, and medication management can help meet the enhanced Stage 1 implementation requirements.

Long before ARRA was signed into law, the Siemens clinical product strategy was to develop state-of-the-art technologies to help optimize clinical workflows so that providers could reach new levels of quality, efficiency, and safety. The new proposed rules further reinforce this strategy.

In the coming year, Siemens will continue its focus on providing net new capability and enhancing existing capability in the areas of medication reconciliation and e-prescribing, interoperability, and quality measures reporting. For example, in the area of standards-based interoperability, we are enabling our solutions to support the exchange of continuity of care documents, thereby improving coordination across care settings and IT systems. Of course, CPOE adoption remains crucial in the new proposed definition, and the requirement that 10 percent of all orders be entered via a computerized provider order entry system is a reasonable first step for most organizations. In fact, many of the Siemens customers currently deployed on Siemens CPOE have met this metric already; we have many customers who have been widely deployed on CPOE capabilities based on Siemens technology for more than 15 years.

For us, these technologies provide tools for supporting critical thinking skills and the workflow of healthcare professionals. By integrating metrics and practice standards into the workflow, Siemens makes evidence-based care protocols available to providers at the point of care. As a byproduct of system use, process and outcome measures are captured as a means to provide the analytics needed for an interactive and retrospective feedback loop. The result has been the development of a portfolio of solutions that enhances usability, promotes adoption, and optimizes efficiencies, by enabling continuous process improvement. Our Healthcare Process Management (HPM) strategy is based on industry-leading workflow technology that effectively links human interactions and enterprisewide data transactions. It is solutions like these that facilitate the delivery of safe, reliable, effective personalized care by the caregiver.



Revenue Cycle Solutions

As part of the latest meaningful use definitions, updated objectives and measures for verifying insurance eligibility and submitting claims electronically were released.

- **Eligibility:** For organizations seeking a solution to satisfy this objective, Siemens offers Health Data Exchange (HDX) electronic insurance eligibility verification solutions, part of a suite of electronic data interchange (EDI) solutions. In addition, Siemens will have services and/or solutions to help calculate and report on the proposed eligibility measure.

- **Claims:** For organizations using Siemens HDX Electronic Claims Service (Payer Option) or The SSI Group, Inc.'s (a Siemens partner) ClickON® LinX claims processing software, these solutions can help satisfy the electronic claims submission objective. For those using Soarian® Financials as their exclusive claims generation solution, it is currently possible to calculate and report on the proposed claims submission measure, which defines the meaningful use requirements for submissions by eligible professionals and eligible hospitals. Siemens customers using SSI's ClickON LinX as their exclusive claims processing solution also have the capability to gather the appropriate metrics to report on the measure. For Siemens customers not using Soarian Financials or SSI ClickON LinX exclusively for claims, Siemens and SSI are currently evaluating solutions to enable reporting on the claims measure.

Meaningful Use Road Map and Solution Packaging

To meet the timelines detailed in the latest meaningful use definitions, Siemens developed recommended implementation road maps for its three CCHIT-certified systems. This work enables us to develop individualized customer road maps. Siemens Global Services has developed the methodology to handle the scope of deployment, using internal Siemens resources and those of our implementation partners. We have a focused plan to help deploy CPOE, a key component of meaningful use, so that our customers can satisfy ARRA requirements for the rate at which physician CPOE adoption must occur.

Mindful of the evolving nature of ARRA requirements and the uniqueness of each customer's environment, Siemens will individually explore each customer's specific situation and map any outstanding requirements for meaningful use to standard solution offerings. To help plan the path to meaningful use, Siemens produced an IT Solution Road Map, which bridges the gaps and provides line of sight to meaningful use over a designated timeline. The Siemens Assessment tool with customized executable road maps will accelerate this process.

Navigating the Information Exchange

Managing information traffic.

Like a grid of the world's largest and busiest highways, patient information must have distinct pathways enabling it to move to the right person at the right time. Therefore, interoperability, the sharing of secure, relevant patient data among caregivers at the time of care delivery, is vital to improving patient care. For that reason, interoperability among healthcare information systems is a key requirement for transforming healthcare and occupies a place of central importance in meeting the requirements of ARRA.

Meeting ARRA healthcare outcomes policy priorities depends on common, shared access to patient information among providers, consumers, payers, and other key stakeholders in the healthcare industry. The national push for a connected, interoperable system, which expedites the exchange of electronic health records between care venues and consumers, will help providers drive improvements in patient safety, the quality of care delivery, and financial performance across the care continuum.

Commitment to Interoperability Standards

With the rapid evolution of technology and its impact, which healthcare domains experience today, there is — just as in any other IT dominated field — an urgent demand for further standardization in healthcare IT. Siemens is already delivering interoperable healthcare information systems, and works through industry citizenship to help develop standards that will further enable interoperability across care entities with systems of all kinds. We remain committed to providing technology that conforms to industry standards for data content, format, terminology, and communication, as required for meaningful use per the Interim Final Rule, and as they will be defined by the final regulations.

These standards are key to enabling Siemens solutions to share information with other systems, including those in ambulatory settings, Health Information Exchanges/Regional Health Information Organizations, public health agencies, and virtually any other stakeholder in a connected community or enterprise.

Structured Documents

A cornerstone of the interoperability criteria defined for meaningful use is the HL7 Clinical Document Architecture (CDA), starting with the Continuity of Care Document (CCD). The CCD is a standardized document framework, which contains essential patient information. It facilitates the exchange of information among multiple providers. Using standards for vocabularies, content exchange, data transport, and privacy/security, our use of the CCD will enable providers to create, view, and send coded CCD documents to and from a repository or provider. In accordance with the final certification criteria for EHR technology, Siemens also intends to support the ASTM International Continuity of Care Record (CCR), enabling users to receive and display CCRs in addition to CCDs.

The Siemens strategy is to provide an advanced form of the CCD, one that contains structured data elements using industry-standard terminologies for medications, allergies, medical problems, and more. This flexible infrastructure will allow us to meet additional interoperability requirements as they solidify.

Enterprisewide Interoperability

In order to deliver higher quality and the most cost-efficient care, data must be available in all settings, across different systems and data sources. As such, many healthcare providers are moving to a more virtually integrated delivery system approach to care — where system interoperability across diverse environments is a prerequisite.

In line with our ongoing strategy to leverage standards where available, Siemens remains committed to adopting and developing standards-based solutions for interoperability between acute and diverse ambulatory settings. In collaboration with key stakeholders, we will implement standards for vocabulary, content exchange, privacy, security, and capabilities that are expected to be part of meaningful use and beyond to promote information sharing. Our approach to interoperability supports the exchange of information between acute and ambulatory settings, while protecting the investments key stakeholders may have made in existing, diverse IT systems.

Health Information Exchanges

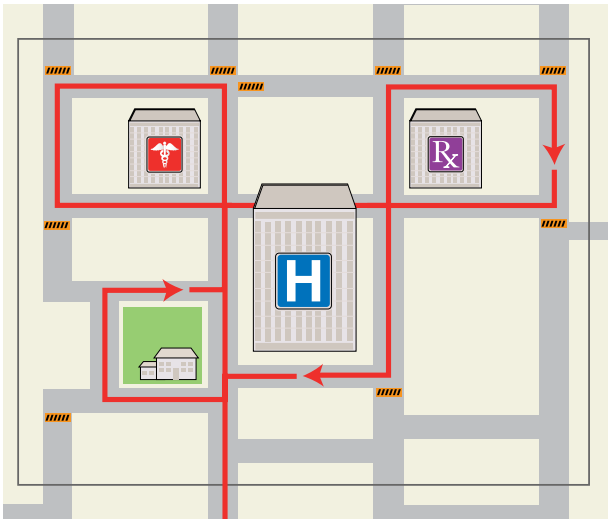
The interoperability requirements for meaningful use clearly state that clinical information and patient summary records must be shared across organizational boundaries. To facilitate this exchange, connectivity to Health Information Exchanges (HIEs) is increasingly becoming a part of providers' interoperability strategies. Siemens provides for CCD exchange with an HIE with advanced interoperability services. Built upon industry standards and IHE XDS.b profiles, Soarian will connect Siemens clinical applications with any CCHIT HIE-certified system.

Patients

To address the ARRA policy priority of engaging patients and families, the Siemens strategy is to provide patients with an electronic copy of patient summaries and access to clinical information. This may be achieved through interoperability between a CCD and a Personal Health Record (PHR) or connectivity to a patient portal. Siemens also provides additional means of sharing information with patients, such as exporting a patient summary to be delivered as a PDF or structured file via media, e.g., CD or USB drive, as defined by HIPAA and the final certification criteria.

Public Health Agencies

Addressing the ARRA priority of improving population and public health, the Siemens interoperability strategy leverages our electronic document exchange infrastructure and includes additional structured clinical information/messages aligned with the standards required by the projected EHR technology certification criteria.



On Course to Quality Measures

Recalculating to improve outcomes.

Any journey toward meaningful use must take safety into consideration. Helping providers deliver quality, safe care is a priority for Siemens. As one of the main ARRA-HITECH Health Outcomes policy priorities, it has now gained even greater attention. Under current proposed meaningful use criteria for hospitals, much emphasis is placed on reporting many new quality measures. While hospitals have been reporting on specific clinical quality measures for some time, the new criteria certainly raise the bar.

Healthcare extends beyond one person, one department, or one building. It is an active process that requires communication, collaboration, and decision-making across care providers and care settings. Siemens solutions help eliminate silos, so patient information flows to the authorized care team, enabling better collaboration and more informed and efficient decision-making. We offer solutions that break down barriers to help you address patient safety initiatives.

The Siemens product portfolio includes advanced, proven analytical and reporting tools that can be used to meet ARRA requirements for quality measures. INVISION® Clinicals customers can apply the quality reporting criteria through the DSS data warehousing solution using data from the INVISION Clinicals repositories, which include COR (Clinical Observations and Results), orders, and LCR (Lifetime Clinical Record). Soarian Clinicals users can leverage embedded analytics to provide analysis and reporting of key metrics. MedSeries4® customers can meet the quality reporting criteria using data from the MedSeries4 repository and patient management suite.

Siemens embedded analytics can also analyze Soarian workflow engine data, enabling customers to apply the Siemens Healthcare Process Management (HPM) methodology to continuously improve processes in line with the rapid pace of change in healthcare. HPM provides tools for designing processes, synchronizing activities of care providers and departments, analyzing organizational performance, and adapting to change. Using HPM tools and techniques, customers have the ability to deploy workflows and measure the results through embedded analytics.

Soarian Quality Measures provides the potential for quality data collection for the current CMS/Joint Commission Core Metrics. It also facilitates the abstraction of clinical information for the calculation of the CMS Core Measures by extracting both structured and unstructured data from database tables as well as EDM documents. Soarian Quality Measures complements Siemens Decision Support Solutions and embedded analytics, providing comprehensive data collection support for INVISION, MedSeries4, and Soarian as well as non-Siemens data sources.

Siemens, like the rest of the industry, acknowledges the fact that recent regulations significantly raise the bar on the number of required quality measures. Once the final regulations are published, Siemens will more specifically define the tools and path to meet the quality reporting requirements included in the final regulations.

Using Proven Solutions

Certification

The ONC has recently published, through the federal rulemaking process, the certification criteria as required by ARRA. The certification process for healthcare information systems will soon be announced. These rulemaking processes allow for a public comment period, with final information available sometime later in 2010. Siemens experts are reviewing the new rules and analyzing them to help ensure that its solutions will be appropriately certified.

In July, ONC signaled to the market that it expects the certification criteria to be closely aligned with the definition of meaningful use. Based on this signal, the CCHIT has taken action to prepare for HHS certification programs. As most are aware, CCHIT is currently the only certifying organization and may have a role in the ARRA certification process in the future. CCHIT indicated that it will update its certification process to align with the process regulations as defined in the IFR.

While ONC has not yet specified or approved CCHIT as a testing agency, CCHIT announced on October 7 that it is accepting applications for two major types of certification programs:

- Preliminary ARRA 2011 certification – A modular certification of EHR technology based on the 2011 objectives and measures in the Meaningful Use Matrix
- CCHIT Comprehensive Certification – A more traditional certification based on the original 2009 CCHIT criteria, but including new criteria to cover the 2011 objectives and measures for meaningful use

Siemens is reviewing the ONC-specified criteria in relation to the prior CCHIT test scripts and certification. However, the CCHIT process and its interpretation of criteria have not yet been approved by ONC. If parts of the Stage 1 certification are soon replaced or invalidated, the effort to pursue it will have diverted resources from other investments in features requested by our customers. Siemens is internally aligning to the rules as they are currently known, but will pursue EHR certification after there is more clarity from ONC and the rules and process have been finalized.

Siemens has not changed its original commitment to have its HIT systems ARRA certified in time for our customers to achieve ARRA incentives.

Safe, secure journey.

Meeting Security and Privacy Requirements

Siemens products currently support Covered Entity requirements of HIPAA privacy and security, which are fundamental components of the ARRA certification requirements. ARRA introduces a few additional privacy and security requirements as well. Siemens is positioned to meet the challenges of the expanded protected health information (PHI) accounting of disclosures and restrictions on disclosure provisions, as well as encryption of data where feasible as a means of further protecting PHI and supporting breach notification requirements.

As final requirements for various privacy and security provisions related to Siemens healthcare IT solutions become known, Siemens will communicate additional updates to our customers. In the meantime, Siemens continues to work closely with industry groups such as HITSP, CCHIT, the HIT Policy and Standards Committees, and WEDI, as well as our contacts within HHS, to better understand expected Privacy and Security impacts and advocate on behalf of our customers.

Hosting Your System

Siemens was one of the first healthcare technology providers to offer remote hosting of healthcare information solutions. For many organizations, remote hosting provides a simpler way of meeting ARRA requirements in the following areas:

- **Capital Expense:** Our ISC averages 99.9% availability and processes more than 194 million transactions daily. Our ASP offerings provide a lower overall cost model and minimize technology and capital expenditures.
- **Privacy and Security:** For more than 40 years, Siemens has provided state-of-the-art security by monitoring and maintaining HIS systems, using system management, application management, wide-area network (WAN) management, infrastructure environmentals, and application and system support.
- **Recovery:** Siemens provides server backup, backup tape offsite storage, hardware maintenance, and disaster recovery. Our system management capabilities provide operating system support and maintenance, database management and support, server backup and reboot scheduling, and capacity planning. Our infrastructure/environmental teams provide power and network redundancy.
- **Time to Live:** Our application management team installs application streams of enhancements, and our change management team allows for the timely and expert implementation of our ASP product offerings.

In summary, Siemens, as your industry partner, will continue to provide innovative technologies, advanced workflow processes, and next-generation solutions that support your enterprise's journey toward meaningful use and beyond.

Communications/Education

The complex array of factors shaping ARRA can change quickly. Staying informed and up to date can be challenging. Through active participation in organizations that influence requirements for ARRA funding, Siemens experts gain valuable insights that we share with customers on a regular basis.

Your portal to key Siemens ARRA information is the Siemens Executive Gateway www.siemens.com/executivegateway, which offers a library of resources and is updated continuously. You'll find links to our ongoing webcast series, customer case studies, and other useful information.

Siemens also launched an ARRA virtual conference in February 2010 at www.siemens.com/Virtual-ARRA to help you understand the new regulations and drive beyond meaningful use to the delivery of exceptional healthcare services. Siemens virtual conferences are available on demand for two to three months after initial launch.

You can also follow us on Twitter at www.twitter.com/SiemensHospIT for the latest updates.

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