



Current Development in RPMS and the American Recovery and Reinvestment IHS Office of Information Technology

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Topics

The background of the slide features a sepia-toned photograph. On the left, several tipis are visible against a cloudy sky. On the right, a close-up of a Native American person wearing a traditional feathered headdress is shown, looking towards the camera.

- IHS IT objectives under the Recovery Act (ARRA)
- EHR Certification and Meaningful Use
- Current and Planned Development in RPMS
- RPMS Deployment
- Personal Health Record Development
- IHS Infrastructure and Other Activities

The Goal of ARRA



- As stated on www.recovery.gov website:
“The American Recovery and Reinvestment Act is an unprecedented effort to jumpstart our economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century.”
- IHS/OIT will focus funding to modernize and extend electronic health information technology throughout

ARRA Objectives for IHS OIT



- Contribute to the revitalization of the American economy
 - Activities will require a significant expansion in the use of IT service companies and will also require significant purchases of hardware from U.S. based information technology companies
 - Job creation
- Deploy a certified electronic health record that meets the requirements of “meaningful use”
- Implement a personal health record tool

ARRA Focus for RPMS



- **Meaningful Use of Certified Electronic Health Record**
 - **Comprehensive Health Information** – Improving capabilities across the RPMS suite – including practice management
 - **Provider Order Entry** – Continued improvements to applications that support the communication of orders and consultations.
 - **Clinical Decision Support** – Creating and acquiring additional clinical decision support tools.
 - **Quality and Performance Reporting** – Expanding existing quality and performance reporting capabilities.
 - **Health Information Exchange** – Activities to ensure that RPMS meets national interoperability standards.
 - **Certification** – Ensuring that RPMS receives national certification as a qualified EHR for ambulatory, inpatient and behavioral health

Certification & Meaningful Use



- Certification and Meaningful Use are two different things
 - Certification attests to the functions and capabilities of the EHR system
 - Meaningful Use attests to whether the system is actually being implemented and used
- A facility can easily install and run an EHR without having “meaningful use” of the system

RPMS EHR Certification



- RPMS EHR is certified under CCHIT Ambulatory EHR criteria (2007)
 - Certification is “developmental” until IHS releases enhancements later this year
 - Pending enhancements to e-prescribing functions
- Certification under new methodology will be sought in 2010 to prepare facilities for 2011 CMS incentives.
 - Ambulatory and Inpatient in 2010
 - Behavioral Health in 2011

New CCHIT Methodology



- **Certified EHR Comprehensive – EHR-C**
 - Rigorous certification of comprehensive EHR systems that significantly exceed minimum Federal standards requirements.
 - For providers who seek maximal assurance of EHR compliance and capabilities.
- **Certified EHR Module – EHR-M**
 - Flexible certification of Federal standards compliance for EHR, HIE, eRx, PHR, Registry and other EHR-related technologies.
 - For providers who prefer to integrate technologies

Certification Program Concepts for EHR Comprehensive (EHR-C)

Definition	Certified EHR-C vendors provide comprehensive EHR products that comply with all applicable Federal standards and enable providers to meet all Meaningful Use Objectives.
Provider applicability	Physician offices and hospitals that prefer to rely on a single vendor to provide their EHR and want maximal assurance that it will fulfill their needs as well as qualify for ARRA incentives.
Certification requirements	Functionality enabling providers to comply with all applicable Federal standards, implement adequate security practices, meet all of the Meaningful Use Objectives, and fulfill other requirements deemed essential through CCHIT's consensus-based development process. Also required: evidence of success in meaningful use at multiple user sites.
Other data published	Usability will be evaluated and rated.
Inspection methods	Juried demonstration, documentation inspection, technical interoperability testing, usability evaluation, live site use verifications.
Cost range	~\$30,000 - \$50,000 range (for new applicants; pricing for retesting of 08 certified products TBD)

Impact of Certification



- Customers assured they are using a fully capable, tested Electronic Health Record system
- Certain grants providers such as HRSA require grantees to use certified systems
- Numerous payment incentives exist or are planned for providers and/or hospitals that use certified EHRs.

Meaningful Use



- ONC just published draft “Meaningful Use” criteria for public comment
- No surprises, although the standards and evaluation criteria are quite ambitious
- Proposed criteria are in evolution, with another iteration due in July

Meaningful Use Matrix



- **Priority 1: Improve quality, safety, efficiency, and reduce health disparities**
 - Provide access to comprehensive patient health data for patient's health care team
 - Use evidence-based order sets and CPOE
 - Apply clinical decision support at the point of care
 - Generate lists of patients who need care and use them to reach out to patients (e.g., reminders, care instructions, etc)

Meaningful Use Matrix



- **Priority 2: Engage patients and families**
 - Provide patients and families with access to data, knowledge, and tools to make informed decisions and to manage their health
- **Priority 3: Improve care coordination**
 - Exchange meaningful clinical information among professional health care team
- **Priority 4: Improve population and public health**

Meaningful Use Matrix



- **Priority 5: Ensure adequate privacy and security protections for personal health information**
 - Ensure privacy and security protections for confidential information through operating policies, procedures, and technologies and compliance with applicable law
 - Provide transparency of data sharing to patient

Measuring Meaningful Use

- RPMS ARRA Outcome Measure
 - Deployment of a certified EHR with meaningful use as measured by percentage of all orders that are electronically entered by the provider into the EHR
 - Standard report, generated from every system operating the RPMS Electronic Health Record, with national aggregation of results
 - Baseline will be established in June/July 2009
 - Current target is that IHS and reporting Tribal facilities will have, at a median, 75% of all orders entered electronically by the provider, by the end of 2011
 - OMB may require a more ambitious target depending

RPMS ARRA Activities



- Focused on Certification and Meaningful Use in order to enable OIT's customers to take advantage of CMS incentives in 2011
- Certification:
 - Re-Certification of Ambulatory EHR in 2010
 - Certification of Inpatient EHR in 2010
- Meaningful Use:
 - Accelerated deployment activities to optimize:
 - Inpatient pharmacy package configuration and use
 - Laboratory package and Reference Lab Interface
 - Outpatient pharmacy package

ARRA-Related Development



- RPMS Development under ARRA will focus initially on those functions required to ensure successful certification
- Additional functions requested by end-users and clinical programs will be developed as time and resources allow
- The next few slides show a subset of development activities that are ongoing or planned, either pre-ARRA or under the ARRA plan.

EHR Development



- E-Prescribing and CCHIT release
- Well Child Module
- Prenatal Care Module
- Nursing flow sheets & VA Vitals implementation
- Improvements to TIU note author
- Group documentation capabilities
- Bar Code Medication Administration deployment
- User-requested enhancements
- CPRS synchronization
- Development of a Web-based EHR user interface

Pharmacy Development



- Multiple drug file enhancement for multi-divisional sites and sites serving non-beneficiaries
- Deployment of Consolidated Mail Outpatient Pharmacy (CMOP) capabilities
- Generic interfaces to pharmacy robotic devices
- Inventory management
- GUI development (low priority)

RPMS Architecture Enhancements



- Code Set Versioning completion and deployment
- Data Metadictionary and Modeling
- Object Layer development (Cache Objects)
- Web Services and Service Oriented Architecture
 - Analysis and planning
- NHIN gateway and viewer development
- EMPI completion and deployment

Other RPMS Enhancements

- PCC (BJPC) v2 just released with enhancements to Patient Wellness Handout, Family History documentation, consolidation of manuals, more
- iCare (BQI) v2 will be released today, incorporates HMS functions into iCare, other enhancements
- Care Management Planning requirements meeting next week – to create comprehensive care/treatment planning functions within RPMS
- Adaptation of VA MHA for standard tool administration
- Simplification of RPMS implementation for small sites

Practice Management Development



- Test lab to evaluate revenue cycle (TPB/AR) alternatives identified in the Alternatives Analysis
- Selection and interfacing of one or more alternatives
- Graphical User Interfaces – Registration, Scheduling and ADT
- 5010 HIPAA Transaction Set development

RPMS EHR Deployment

- Focused on ensuring access to CMS incentives for meaningful use of certified EHR technology
- Inpatient
 - Presently EHR used in 10 inpatient settings
 - Targeting additional 28 inpatient facilities
- Barriers to effective implementation
 - Multidivisional site setup
 - RPMS Lab configuration including POC labs
 - Reference Lab Interface implementation
 - Inpatient Pharmacy configuration

Personal Health Record Adoption



- Development and collaborations to create truly consumer-oriented tools for management and portability of personal health information
- Enable patients to enter personal data such as health history, allergies, medications, family history, and share this data with providers in any system
- Improve communication between patients and health system, such as for scheduling, refill requests, results, etc.
- Health-related information and tools for patients

Other OIT-Funded ARRA Activities



- Funding for VistA Imaging hardware
- Funding for Digital/Computed Radiology systems
- Limited funding available to support interfacing or reporting support requests from tribal programs

Infrastructure Activities

- Improvements to the IHS network for support of future telehealth initiatives.
 - Complete refresh/upgrade of network routers
 - Complete refresh of agency domain controllers
 - Implementation of multi-factor authentication for remote users
 - Security upgrades for intrusion detection, vulnerability management, and log analysis
 - Upgrade/expansion of the storage area network

RPMS and Open Source



- RPMS is taxpayer-funded and therefore public domain
- Certain proprietary exceptions
 - Operating systems
 - Cache
 - VueCentric Framework (OS release pending)
 - CPT codes
 - IMMSESV forecaster
- Certain non-FOIA-able pieces (security manuals, broker authentication hash tables)
- IHS supports and encourages open source

Non-IHS Interest in RPMS



- CHNWX and other West Virginia entities
- State/University of Hawai'i
- State of Alaska
- WorldVista
- Vendors/support companies
 - Medsphere
 - DSS
 - Others
- Additional private/public sector providers
- IHS welcomes this interest and is hopeful for your



discussion