

# Accomplishments and Contributions

## **Congratulations!**

*In recognition of the outstanding work performed throughout the OIT, the Armed Forces Communications and Electronics Association awarded its 2010 Outstanding Achievement Award in Health Information Technology to RADM Theresa Cullen, M.D., M.S., Director, OIT*



## The Electronic Health Record and Meaningful Use

The Health Information Technology for Economic and Clinical Health (HITECH) Act authorized the Centers for Medicare and Medicaid Services (CMS) to provide financial incentives for the “meaningful use” of an EHR.

To qualify for Stage 1 incentives, the EHR must be certified to standards set by the Office of the National Coordinator for Health Information Technology and the provider or hospital must use the EHR in specified ways. OIT developed an IHS Meaningful Use (MU) program to certify the RPMS EHR and to help providers and hospitals achieve MU.

MU-driven improvements in electronic access to personal health information, electronic prescribing, health information exchange, and measures of the quality of clinical care are aimed at improving patient care. Providers will benefit from increased use of Health

Information Technology (HIT) to aid decision-making and speed access to patient records, regardless of location. Public Health agencies will benefit from increased surveillance activity and transmission of reports. Immunization registries will benefit from enhanced exchange of data. Providers receiving transfers of care will benefit from standardized health information.

The coordinated national effort of the IHS MU Program has spread awareness of MU benefits throughout Indian Country. Certification of the RPMS EHR paves the way for eligible providers and hospitals to earn Medicaid incentives in 2011 and beyond. Investment in secure health information exchange benefits all programs interested in exchanging health information. Development of clinical quality measures and reports for tracking MU progress are facilitated by a centralized IT program.

## The American Recovery and Reinvestment Act

During fiscal year (FY) 2010 OIT was able to stay consistent with the estimated spending schedule and the overall goal of working to achieve MU at Tribal and Federal IHS facilities in 2011. OIT plans to have RPMS certified as both an inpatient and an ambulatory EHR in time for Federal and Tribal customers to qualify for MU by the third quarter of FY2011.

OIT obligated virtually 100 percent of its allotted American Recovery and Reinvestment Act (ARRA) funds by the end of FY2010 and expended 72 percent; 36 percent was spent on infrastructure, 34 percent on RPMS field enhancements, 21 percent on HIT field enhancements, and 2 percent on ARRA administrative duties. OIT sent 7% of ARRA funds directly to the tribes for non-RPMS interfaces. ARRA projects are designed to have a comprehensive, direct, and immediate impact on the Indian health system.

Most of the network and infrastructure equipment has been purchased and installed or is in the process of being installed, including upgrades to the network routers and domain

controllers, expansion of the storage area network, and improvements to network security. OIT funded several software projects in FY2010, including an open source Personal Health Record (PHR), Patient Registration and Scheduling graphical user interface (GUI), MU and EHR Certification Support, and EHR deployment. These hardware and software projects will be essential to providers and facilities seeking to achieve MU.

FY2010 ARRA resources improved average uptime of the wide area network from 99.4 percent to 99.8 percent. OIT also measured its ARRA project performance by monitoring the percentage of computerized provider order entries that utilize the EHR; at the end of 2010, OIT had reached its goal of 66% and is on pace to see at least 75% of all orders being electronically entered by the end of FY2011.

ARRA funds enabled OIT to modernize and extend IHS’s electronic HIT thereby improving the access, quality, safety, and overall health status of the American Indian and Alaska Native People.

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## Guiding Principles

- Provide technology services and support that will allow the IHS to achieve its mission and strategic goals.
- Provide leadership, policy guidance, and strategic direction for the IT enterprise.
- Develop and maintain efficient and effective technology assets to support the technology needs of clinical and administrative programs.
- Provide technical direction for the reform of IHS business processes, delivering timely business solutions through IT.
- Provide a secure, interoperable health information system resulting in controlled costs and reduction of dangerous medical errors.

## Healthcare Delivery

RPMS development focused on the ability to share patient health information with external systems, modernization of user interfaces for several applications, and MU. HITECH allows healthcare providers and hospitals to recover much of the cost of the adoption of EHR systems if they successfully adopt and “meaningfully use” systems that meet stringent certification requirements.

Other development includes new or enhanced GUIs, such as those for behavioral health and well child care, with additional interfaces in the works for admission, discharge, transfer, and pharmacy, among others.

A fully capable, comprehensive EHR system provides immediate access to the patient’s health information at the point of care. Safety checks and decision support tools ensure that medication orders are as safe as possible and that providers receive appropriate reminders of needed services. Patients at facilities using RPMS will soon have access to their own health information via a PHR that includes information that may be stored at multiple I/T/U facilities. Continued PHR development will allow our patients to become increasingly active participants in their own care.

**TELEHEALTH** activities benefit many care teams, patients, and communities within the Indian health system, and evolving models of service foster cooperation with other IHS

and Tribal offices and programs. Moreover, collaboration with organizations outside Indian health advances Telehealth planning and services, including expanded cardiology service for the IHS Phoenix and Navajo Areas through tele-cardiology consultation and multiple improvements in clinical service through Telehealth specialty consultation (e.g. behavioral health, pediatrics, and rheumatology).

Regular consultation with I/T/U sites and program teams disseminates information about Telehealth capability and service planning, implementation, and evaluation. Emphasis is placed on the integration of Telehealth tools with Agency initiatives, such as Improving Patient Care, and regional specialty service programs (e.g. The Native American Cardiology Program). Telehealth also advises in matters of reimbursement policy (e.g. State Medicaid programs).

Telehealth continues an important role in expanded infrastructure development, videoconferencing, store-and-forward Telehealth, remote monitoring, and mHealth services along with data integration and interface work with EHR. Telehealth further expanded regional and national clinical services, such as the IHS Joslin Vision Network Tele-ophthalmology program and the Phoenix Indian Medical Center Tele-dermatology service.

## Technical Support

IOAT activities in support of the IHS technical infrastructure are managed centrally by the Division of Information Technology Operations. The core network administration and authentication services are centrally administered while local services are provided by personnel in field locations. IOAT provided operational leadership and direction via published standards and the adoption of supported technology. These published standards of support are provided as a roadmap for Area and site decision makers.

The focus on consistent delivery of reliable services has made IOAT a steadfast component of IHS information technology services. IOAT provides reliable and efficient IT services to the IHS community. IHS transitioned e-mail services from an HHS enterprise solution to the IHS Central Email Service in 2010. This transition increased reliability, reduced costs around \$800K annually, and provides the flexibility to enhance service capabilities that best serve the IHS mission.

IOAT continues to provide a safe environment for data storage and transmission.



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## Business Solutions

**NPIRS** provided guidance and testing of data exports from new sending sites, maintained and improved customer access to data, assured data integrity, and educated customers on the meaning of the data. Customers benefited from appropriate access to the national level databases stored and maintained by NPIRS, and were able to access the data directly through the General Data Mart to create reports for conditions of interest to a specific program; data was scrutinized at multiple levels of detail as required by the report being produced. A new General Data Mart web site is tailored to better meet these needs.

Customer requests for special analyses, reports and data extracts were approved and processed in a timely manner. NPIRS personnel

also provided valuable advice and interpretation of data. NPIRS provided approved, secure access to national level IHS healthcare data to the benefit of customers seeking analyses, reports, and data to meet individual needs. Customers included the Center for Disease Control, the Department of Justice, the University of New Mexico, and the Johns Hopkins University School of Medicine.

**INFORMATION SECURITY** implemented several enterprise-wide security controls, including vulnerability scanning, antivirus and spam filtering, virtual private network, secure socket layer applications, intrusion prevention, Internet policy enforcement, and automated centralized patching. The IHS information security environment now has multiple controls in place, including System Security Awareness training and Rules of Behavior, Security Authorization program, incident response team, and access control tracking through the online Information Technology Access Control application.

Enterprise-wide security projects greatly improved the IHS security posture and helped to meet the requirements of the Continuous Monitoring phase of the NIST Security Authorization process and the MU security and privacy requirements. IHS has dramatically reduced the amount of high risk vulnerabilities throughout the enterprise.

The Division of Information Security has implemented security solutions for the use and benefit of all facilities (e.g., the Vulnerability Management, Penetration Testing, and Intrusion Detection programs benefit both IHS and Tribal facilities). OIT has implemented solutions for encrypting both data-in-motion and data-at-rest, ensuring that patient data is encrypted.

**CPIC** provided support to IHS Offices and Area staff in the development of Business Needs Statements and Business Cases, and orientation and training sessions on the CPIC, Enterprise Performance Life Cycle (EPLC), and IT Governance processes. This outreach helps to ensure that IT investments align with the IHS mission, strategic goals, and objectives, and support business needs while minimizing risks and maximizing returns. The CPIC process is an essential tool to meet budget and business needs.

The EPLC provides necessary checks and balances to ensure that vital IT projects are completed within cost and schedule. IT projects that are not performing as planned are discontinued.

Use of earned value in IT projects has increased the visibility of underperforming projects. The monthly reporting of earned value to the IT Dashboard provides for improved visibility of IT project status. Earned value facilitated the allocation of ARRA funding.

Multiple IT projects have followed the IT Governance process, which includes technical review by the OIT Technical Review Board and approval by the IHS Information Technology Investment Review Board. Projects that are approved through IT Governance are generally more successful. A number of enterprise initiatives are in place to enhance IT project success rate, including implementation of EPLC for all OIT projects, reporting to the IT Dashboard, and promotion of CPIC throughout IHS.

**ENTERPRISE ARCHITECTURE** continued developing program governance and infrastructure. The program is now a critical partner within the EPLC for review of all proposed and active IT projects. The EA program led the planning and development of the OIT Strategic Plan, and the ongoing development of a national IHS technical inventory and all related standards.

The development of the IHS technical inventory will be of tremendous value to the IT community and its business partners. It will provide a process whereby duplication of technology is minimized and the reuse of existing technology is maximized. The EA program has implemented an Annual Planning Cycle (APC) that will integrate all critical OIT planning requirements into a continuous, repeatable process. The APC will be of a direct benefit to the OIT customers as it facilitates enhanced resource planning and usage.

### **Congratulations!**

*The IHS Acting Chief Enterprise Architect is now a Certified Enterprise Architect, following completion of a certification program administered by the Federal Enterprise Architect Certification Institute*

