Health Information Technology Standards Advisory Committee (HITSAC)

Annual Report 2013

Virginia Information Technologies Agency

Adopted February 20, 2014

www.vita.virginia.gov

HITSAC 2013 Membership

Dr. Marshall Ruffin, HITSAC Chairman, Executive Vice President and
Chief Technology Officer, Inova Health Systems
(July 2009-Present)
Dr. Sallie S. Cook, Chief Medical Officer,
Virginia Department of Health Research and Quality (DHRQ)
(May 2011-Present)
Dr. James H. Harrison, Associate Professor and Director of Clinical Informatics,
Departments of Public Health Sciences and Pathology, University of Virginia
(May 2011-Present)
Mr. Rich Pollack, Vice President and Chief Information Officer,
Virginia Commonwealth University Health System
(February 2011-Present)
Mr. John Quinn, Chief Technology Officer
Health Level 7
(August 2009-Present)

HITSAC Past Members

Mr. Daniel Barchi (July 2009-September 2010)
Mr. Geoff Brown (July 2009-April 2011)
Dr. Alistair Erskine (July 2009-November 2010)

HITSAC Staff Administrators

Ms. Nadine Hoffman (July 2009-September 2010)
Ms. Susan McCleary (September 2010-September 2011)
Dr. Joseph Grubbs (September 2011-February 2014)
Ms. Nicole Helmantoler (February 2014-Present)

Executive Summary

Legislative History, Statutory Authority and Guiding Principles

The Commonwealth of Virginia's Health Information Technology Standards Advisory Committee (HITSAC) advises the Information Technology Advisory Council (ITAC) with statutory authority codified under § 2.2-2699.7, *Code of Virginia*.

HITSAC consists of five members, appointed by ITAC, and advises ITAC, the Chief Information Officer (CIO) of the Commonwealth and the Secretaries of Technology and Health & Human Resources on the utilization of nationally recognized technical and data standards for health IT systems or software.

Prior Year Accomplishments

Since its formation in July, 2009, HITSAC has advised ITAC, the CIO of the Commonwealth and Secretary of Technology on the adoption of 127 health IT standards. HITSAC's contributions also have included significant recommendations in the following areas:

- Health IT interoperability
- Health information exchanges (HIEs)
- Enterprise architecture and governance

Milestones in 2013

The past year has been an exciting period for HITSAC and in the health IT domain of state government. During 2013, HITSAC offered guidance for

- ConnectVirginia's onboarding of the first "node" onto the statewide HIE
- Commonwealth of Virginia's EIA strategy
- VITA's compliance plan for data standards
- Enterprise architecture implemented under the Electronic Health and Human Resources (eHHR, HIT/MITA) Program
- Emerging trends in health IT standards and interoperability, including genomics, genetic research and personalized medicine

Priorities for 2014

HITSAC has identified the following as priority work streams for the coming year:

- Genomics and Bioinformatics Working Group
- Commonwealth Enterprise Information Architecture Domain Report
- Enterprise Data Management (EDM) Organization Data Exchange Standard
- Compliance Monitoring Strategy for Data Standards
- ConnectVirginia Implementation Guide (IG) Standard
- National and International Health IT Standards

Legislative History, Statutory Authority and Guiding Principles

In 2009, the General Assembly enacted legislation creating the Health Information Technology Standards Advisory Committee (HITSAC) as an advisory committee to the Information Technology Investment Board (ITIB), with statutory authority codified under § 2.2-2458.1, *Code of Virginia* (all statutory references herein are to the *Code of Virginia*, unless otherwise noted).

The following year, the legislature dissolved the ITIB and moved ITIB's authority under the Chief Information Officer of the Commonwealth (CIO) and Secretary of Technology. The IT Advisory Council (ITAC) was formed to advise the CIO and Secretary on IT-related matters, and HITSAC was restructured to serve as an advisory body to ITAC with statutory authority pursuant to § 2.2-2699.7.

HITSAC in this capacity consists of five members, appointed by ITAC, and advises ITAC, the CIO of the Commonwealth and the Secretaries of Technology and Health & Human Resources on the utilization of nationally recognized technical and data standards for health IT systems or software. HITSAC is administered by VITA's Commonwealth Data Governance team.

As stated in the HITSAC Charter, HITSAC executes its statutory authority based on the following Guiding Principles:

1. Provide guidance and expertise to ITAC on health IT standards, including technology, vocabulary, messaging, data, data exchange and related standards.
2. Support ITAC's role in data governance and related activities toward a Commonwealth-wide strategy for enterprise information architecture.
3. Provide guidance and expertise to ITAC regarding the integration of data governance and standardization activities between health IT and the other domains of state government.
4. Advise ITAC on the development of a statewide Health Information Exchange.
5. Focus on data requirements and standards for both patient health and public health purposes (research) as they relate to purchases of health IT systems or software purchased by a state agency of the Commonwealth.
6. Provide advice which ensures the availability of patient centric data across the Commonwealth's systems.
7. Recognize healthcare delivery information systems, like Electronic Medical Records (EMR) and Electronic Health Records (EHR), as a utility of health IT.
8. Focus on semantic interoperability and shared vocabulary as critical success factors.
9. Provide advice on congruency with the guidance of the Office of the National Coordinator for Health Information Technology (ONC) and achieving semantic interoperability with ONC's work.
10. Advise on national or international standards where they exist. In the absence of a national or international standard, recommend other standards aligned with national or international standards to meet the Commonwealth's needs.
11. Ensure recommendations for standards have been developed based on business drivers and validated prior to adoption.

Prior Year Accomplishments

Since its formation, HITSAC has advised ITAC, the CIO of the Commonwealth and Secretary of Technology on the adoption of 127 health IT standards. This includes data, data exchange, vocabulary, messaging and technology standards and implementation guides. A full report documenting the inventory of adopted health IT standards has been provided as **Appendix 1**.

However, HITSAC's contribution to the Commonwealth has been greater than in the area of health IT standards. The following retrospective examines HITSAC's prior year accomplishments, framed around three primary focus areas: (1) health IT interoperability, (2) health information exchange and (3) enterprise information architecture and governance.

> *Since its formation, HITSAC has advised ITAC, the CIO of the Commonwealth and Secretary of Technology on the adoption of 127 health IT standards.*

Health IT Interoperability

HITSAC's focus on health IT interoperability has been to promote semantic interoperability within the Commonwealth, using industry best practices, and with other states and federal agencies. This has involved shaping the state government's adoption of "external" standards – those developed and maintained by national and international standards development organizations (SDOs). External standards promote interoperability by enforcing rules, naming conventions, specifications and vocabulary for health information. The foundation set of standards recommended by HITSAC included Health Level 7 (HL7) for clinical documents, Systematized Nomenclature of Medicine (SNOMED) for vocabulary and Logical Observation Identifiers Names and Codes (LOINC) for lab reporting. HITSAC has continued to review changes to HL7 and advise on how the Commonwealth's standards should evolve to remain consistent. HITSAC's primary achievements in health IT standards have been as follows:

- Recommended in September 2009 that the Commonwealth align with the architecture and interoperability standards adopted for the National Health Information Network (NHIN, now known as eHealth Exchange) and the federal Healthcare Information Technology Standards Panel (HITSP).

- Advised on the adoption of two sets of health vocabulary and messaging standards, which included HL7, SNOMED, American National Standards Institute (ANSI) ASC X12 (for health insurance claims) and RxNorm (for clinical drugs). The first set was adopted by the Secretary of Technology in October 2011 and the second set in June 2012.

- Supported Virginia's Health IT/Medicaid IT Architecture (HIT/MITA) Program by advising on data exchange standards for the Enterprise Data Management (EDM) service – a solution for matching Person records across agency source systems. The EDM Person Data Exchange Standard was adopted by the Secretary of Technology in April 2012.

Health Information Exchange

HITSAC has played an instrumental role in advising the Commonwealth on development and implementation of its statewide health information exchange (HIE). HIEs support the sharing of electronic health information among participating health systems and providers, enabling more seamless access to clinical data and enhancing patient care.

The exchange of electronic health information requires agreements on health IT standards and governance. Virginia's statewide HIE – ConnectVirginia – leveraged HITSAC's subject-matter expertise as it laid the foundation for its architecture and governance model. HITSAC's specific contributions to the ConnectVirginia HIE included the following:

> *HITSAC has played an instrumental role in advising the Commonwealth on development and implementation of its statewide HIE.*

- Compiled information on HIEs and related health IT activities in neighboring states (North Carolina, Maryland and West Virginia). HITSAC heard the first set of presentations during its July 30, 2009, meeting, with additional presentations on HIE-related topics following throughout 2009 and 2010.

- Examined existing health information sharing relationships within the Commonwealth. During the February 2011 meeting, HITSAC heard a detailed presentation regarding exchanges between the Division of Consolidated Laboratory Services and university health systems.

- Maintained a collaborative relationship with ConnectVirginia. Starting with its December 2011 meeting, and again in October 2012, HITSAC advised Community Health Alliance and ConnectVirginia on enterprise architecture, onboarding certification and trust frameworks.

Enterprise Architecture and Governance

At a governance level, HITSAC has made a significant contribution in the Commonwealth's Enterprise Architecture program. This includes the following:

- Built from foundational work by the Commonwealth's Health IT Advisory Committee (HITAC) and in 2009-2010, under direction from the Secretaries of Health and Human Resources and Technology, advised on development of the strategic and operational plan for the statewide HIE and its interoperability with the "Government Gateway," which became the shared services portfolio designed on the Medicaid IT Architecture (MITA) model. This was articulated in April 2011 into the COV-HIE Topic Report-Information Domain of the Commonwealth Enterprise Technical Architecture.

- Established a base document for enterprise information architecture (EIA) during 2011 by drafting a Governance Model for identifying, developing and recommending for adoption health IT standards. Although the proposed Governance Model faced constraints associated with HITSAC's statutory authority, the committee's vision provided a foundation for the process model that VITA/Commonwealth Data Governance would adopt in the Commonwealth Data Standardization Plan and EIA Strategy.

> *HITSAC has made a significant contribution in the Commonwealth's EA program.*

- Advised on policy amendments for EIA to be included in the state's EA Policy 200. During its March 2012 meeting, HITSAC helped VITA staff shape a robust definition of EIA and frame an EIA maturity model to guide the Commonwealth toward its desired future state. The Secretary of Technology adopted the EIA language into EA Policy 200-02 in July 2012.

- Informed VITA's development of a compliance strategy to meet new statutory requirements for data standards. The General Assembly included language in the 2012 Appropriation Act calling for the Secretary of Technology to work with cabinet secretaries and their agencies to standardize all "citizen-centric" data. HITSAC provided input and recommended transmittal of VITA's Commonwealth Data Standardization: Interim Plan in October 2012.

Milestones in 2013

The past year has been an exciting period for HITSAC and in the health IT domain of state government. During 2013, HITSAC offered guidance for ConnectVirginia's onboarding of the first "node" onto the statewide HIE, the Commonwealth's EIA strategy, VITA's compliance plan for data standards and new enterprise architecture implemented under the [Electronic Health and Human Resources (eHHR, HIT/MITA) Program](#). In addition, HITSAC initiated a dialog on several areas of interest for health IT standards and interoperability, including genomics, genetic research and personalized medicine.

The following summary describes HITSAC's milestones for 2013 around health information exchange, the Commonwealth's EIA and governance activities and an array of health IT initiatives. Meeting minutes and presentation materials may be accessed on the [HITSAC pages on the VITA website](#).

Health Information Exchange

ConnectVirginia Implementation Guide (IG) Standard: HITSAC in February 2013 heard a joint presentation by representatives from ConnectVirginia and MEDfx, the HIE's technology solutions provider, regarding the following IGs used for onboarding, testing and certification of HIE participants:

[ConnectVirginia EXCHANGE Onboarding and Certification Guide](#): Provides an overview of ConnectVirginia, available web services and the application process.

[ConnectVirginia EXCHANGE Services Implementation Guide](#): Outlines web services available to query and to retrieve medical information.

[ConnectVirginia EXCHANGE Clinical Content Implementation Guide](#): Establishes the health IT standards enforced for the exchange of clinical information.

[ConnectVirginia EXCHANGE Node Certification Testing Guide](#): Defines the certification requirements for HIE participants to meet for onboarding.

HITSAC recommended support for ConnectVirginia's direction on the IGs and implementation of the statewide HIE. The ConnectVirginia IG Standard remains under development but is planned for formal action by HITSAC during 2014.

Inova ConnectVirginia Onboarding Experience: In June 2013, HITSAC heard a presentation from Sandy McCleaf, Executive Director of ConnectVirginia, and Geoff Brown, CIO of Inova Health System, providing an overview of Inova's experience with onboarding as the first "node" on ConnectVirginia. This gave HITSAC an opportunity to better understand the onboarding process, provide recommendations for onboarding future participants and further inform development of the forthcoming ConnectVirginia IG Standard.

Enterprise Information Architecture and Governance

Commonwealth Enterprise Information Architecture (EIA) Strategy:
HITSAC in February 2013 received a presentation highlighting elements of the
Commonwealth EIA Strategy and opened a forum for members to provide input on
the draft strategy. The strategy focused on goals and objectives on the four EIA
program areas: data governance, data standards, data asset management and
data sharing. HITSAC in February voted to recommend that VITA staff continue
toward finalizing the plan then in June 2013 recommended the final plan for
adoption by the CIO of the Commonwealth and Secretary of Technology. The
Commonwealth EIA Strategy was adopted by the Secretary in August 2013.

**NIEM Core Person Data Exchange Standard & Commonwealth Data
Standardization: Final Plan:** During its February 2013 meeting, HITSAC received
an overview of the National Information Exchange Model (NIEM) Core Person Data
Exchange Standard, which VITA developed to meet the new statutory
requirements under Item 427 of the 2012 & 2013 Appropriation Acts for
standardizing "all citizen-centric" data. HITSAC voted to recommend adoption of
the standard by the CIO of the Commonwealth and Secretary of Technology. In
June 2013, HITSAC heard a presentation on the Commonwealth Data
Standardization: Final Plan, which documented VITA's compliance strategy for the
Item 427 requirements. HITSAC voted to recommend transmittal of the plan by
the Secretary of Technology to the General Assembly, and the Secretary executed
the transmittal on July 1, 2013.

Commonwealth EIA Domain Report-Requirements: With adoption of the
Commonwealth EIA Strategy by the Secretary of Technology in August 2013,
HITSAC turned its attention to the implementation plan for the new strategy. In
October 2013, HITSAC received an overview of EIA Domain Report – the guidance
document for EIA implementation – and voted to recommend staff continue with
the requirement statements that guide the process to achieve goals and objectives
established in the strategy. The draft EIA Domain Report has been completed and
posted for public comment.

**Strategy for Integrating Data Governance Compliance Reviews and IT
Investment Management:** In October 2013, HITSAC heard an overview on how
VITA will be integrating compliance reviews into its review and approval process
for major IT investments. This represents an important mechanism for
implementing the new statutory requirements for data standards. HITSAC voted to
recommend that VITA proceed with instituting the compliance reviews.

EIA Forum: HITSAC dedicated a majority of its October 2013 meeting to hosting a
forum on EIA. Highlights from the forum included the following:

> *Data Governance and Data Stewardship-Core Principles Underlying Enterprise
> Information Architecture:* Presentation by Dr. Peter Aiken, Associate Professor
> of Information Systems at Virginia Commonwealth University, Director at Data
> Blueprint and President of the International Data Management Association
> (DAMA) on the role of governance in EIA.

Agency All-Stars: A series of presentations focusing on innovative EIA activities currently underway by Commonwealth agencies. The presentations included:

Information Exchanges Across Service Domains
Zacc Allen, IT Manager, Virginia Department of Corrections

Virginia Longitudinal Data System (VLDS)
Bethann Canada, CIO, Virginia Department of Education

Virginia Geographic Information Network and E911
Steve Marzolf, Integrated Services Program (ISP) Director, VITA

Enterprise Architecture and the Commonwealth Gateway
Todd Kissam, Chief Enterprise Architect, VITA

Commonwealth Data Stewards Group: Proposal by VITA staff to create a formal data stewards group to help guide the EIA strategy implementation. HITSAC voted to endorse VITA's efforts to create the new group.

HITSAC Charter: HITSAC reviewed the HITSAC Charter during its October 2012 meeting, noting amendments were required not only to update the *Code of Virginia* references for HITSAC's statutory authority but to take into account the full range of the committee's guiding principles. VITA staff drafted new Charter language and presented the proposed amendments to HITSAC during the June 2013 meeting. The proposed HITSAC Charter amendments were presented to ITAC in August 2013 and adopted by the Secretary of Technology in October 2013.

Health IT Initiatives

New Initiatives at the Virginia Department of Health (VDH): Debbie Condrey, CIO of VDH, during the February 2013 meeting provided HITSAC with an overview of the agency's new health IT initiatives. The primary initiatives outlined included interfaces to the Birth, Death and Immunization registries, the All Payer Claims Database, the Virginia Vital Events Screening and the Tracking System for Electronic Death Registration and the Vital Records Index.

Genomics and Personalized Medicine: HITSAC in June 2013 heard a presentation by Mollie H. Ullman-Cullere, Co-chair of the HL7 Clinical Genomics Workgroup, on recent advances, use cases and applicable health IT standards in genomics and personalized medicine. The presentation also included a review of use cases on proactive health planning and predictive risk, pharmacogenomics, toxicogenomics and pharmacovigilance, newborn screening and risk identification. HITSAC has noted that it views genomics, genetic research and associated health IT standards as priority topics to continue exploring in 2014.

Cross Sector Digital Identity Initiative (CSDII): In June 2013 and again in August 2013, HITSAC received presentations by Mike Farnsworth, consultant to the Department of Motor Vehicles, on Virginia's pilot under the [National Strategy for Trusted Identities in Cyberspace (NSTIC)](). CSDII is operated as a consortium of public and private organizations to develop the next generation of secure, privacy enhanced online transactions. The CSDII consortium has started working with Inova Health System as the first relying party participant, with the goal of using the CSDII technology as a gateway for patient and provider access to electronic health records. HITSAC also began exploring the opportunity for using CSDII as a gateway for researchers in clinical trials to maintain a single logon for access to multiple clinical research systems – within the Commonwealth and in other states.

Division of Consolidated Laboratory Services Initiatives: Willie Andrews, Director of Laboratory Operations, and Vickie Tyson from the Division of Consolidated Laboratory Services (DCLS) in August 2013 presented to HITSAC new initiatives at DCLS. The primary initiatives included the DCLS Public Health Laboratories (PHL), new Newborn Screening System, Laboratory Information Management System (LIMS) and the health IT standards for reporting and messaging associated with these systems.

Priorities for 2014

HITSAC expects 2014 to be a dynamic year for health IT under the new Administration and has identified the following as priority work streams:

Commonwealth EIA Domain Report: The implementation mechanism for the Commonwealth EIA Strategy and formal set of requirements for VITA activities in the goal areas of data governance, data standards, data asset management and data sharing.

Enterprise Data Management (EDM) Organization Data Exchange Standard: The data exchange standard to support development, probabilistic matching and information sharing within the "Organization Hub" of VITA's master data management service.

Compliance Monitoring Strategy for Data Standards: Ongoing review and advisement on VITA's compliance monitoring strategy under the Commonwealth Data Standardization: Final Plan.

Genomics and Bioinformatics Working Group: Continuation of the focus on genomics, genetic research and bioinformatics building from presentations during 2013, along with the potential for forming a working group to identify health IT standards to support these initiatives within the Commonwealth.

ConnectVirginia Implementation Guide (IG) Standard: Review and formal action on the ConnectVirginia IGs as Commonwealth health IT standards.

National and International Health IT Standards: Ongoing focus on trends in the United States and globally on health IT standards with an emphasis on the following:

International Health Terminology Standards Development Organization (IHTSDO)

Office of the National Coordinator for Health IT (ONC) Standards and Certification Criteria: 2014 Edition