# HITSP Technical Committee Orientation Session

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Vice President, Informatics, HIMSS
HITSP Technical Manager
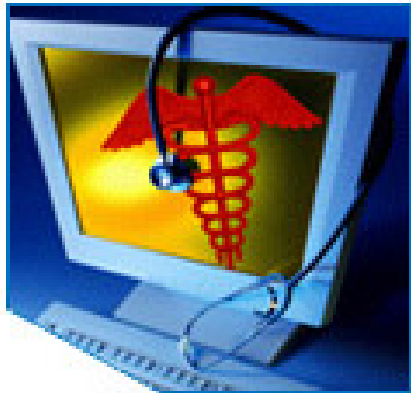
# The Panel's Purpose

To harmonize and integrate diverse standards that will meet clinical and business needs for sharing information among organizations and systems.

❑ Establish HITSP Interoperability Specifications and promote their acceptance;

❑ Support the deployment and implementation of HITSP Interoperability Specifications across the health care enterprise;

❑ Facilitate the efforts of standards developing organizations to maintain, revise or develop new standards as required to support the HITSP Interoperability Specifications.

**Harmonized standards promote interoperability, enhance healthcare quality and contain costs**

# HIT Standardization



HITSP members agreed that a **standard** is a well-defined approach that supports a business process and . . .

- has been agreed upon by a group of experts;

- has been publicly vetted;

- provides rules, guidelines, or characteristics;

- helps to ensure that materials, products, processes and services are fit for their intended purpose;

- is available in an accessible format;

- is subject to an ongoing review and revision process.

**Standards Harmonization** is required when a proliferation of standards *prevents* progress rather than *enabling* it.

# HITSP and Its Stakeholders - Harmonizing and Integrating Standards To Meet Clinical and Business Needs

**Patients**

**Consumers**

**Employers**

**General Practitioners**

**Specialists**

**Payers**

**Suppliers**

**Hospitals**

**Review Boards**

**Practice Guidelines**

**Residential Care Providers**

**Outpatient Healthcare Providers**

**Government Agencies**
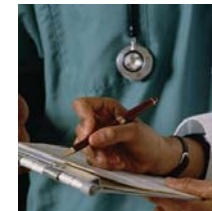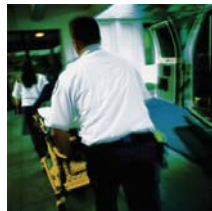
HITSP - volunteer-driven, consensus-based organization funded by the Department of Health and Human Services.

## Panel Members – Board of Directors – Technical and Coordination Committees

| Standards Developing Organizations (SDOs) | Non-SDOs | Government Bodies | Consumer Groups | Project Team Members (non-voting) | Total |
|---|---|---|---|---|---|
| 27 | **395** | 39 | 19 | 12 | **480** |
| 6% | **82%** | 8% | 4% | 3% | **100%** |

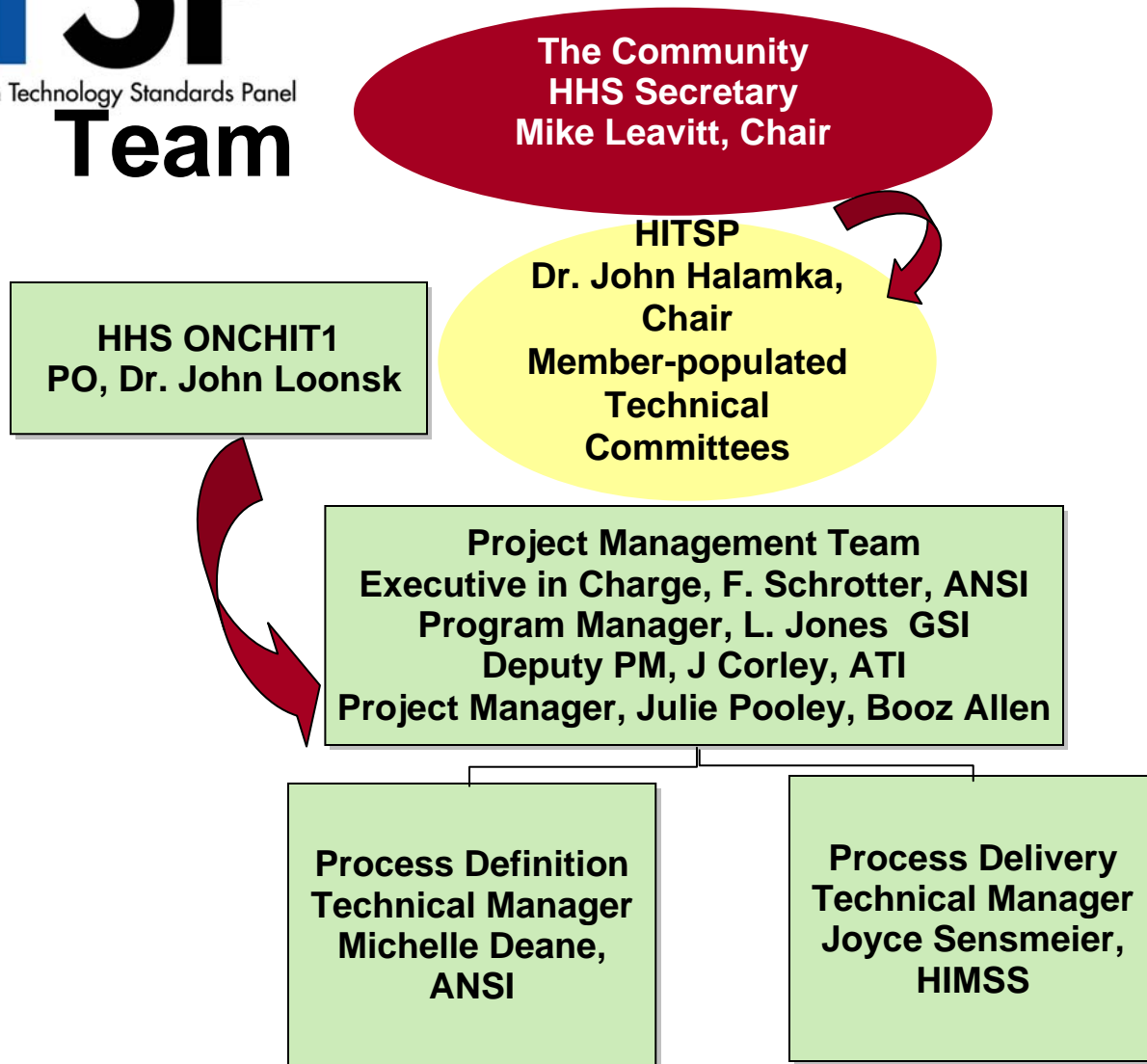**HITSP members are representatives of the broad Healthcare IT community**

**HiTSP** Team
Healthcare Information Technology Standards Panel

**The Community**
**HHS Secretary**
**Mike Leavitt, Chair**

**HITSP**
**Dr. John Halamka,**
**Chair**
**Member-populated**
**Technical**
**Committees**

**HHS ONCHIT1**
**PO, Dr. John Loonsk**

**Project Management Team**
**Executive in Charge, F. Schrotter, ANSI**
**Program Manager, L. Jones GSI**
**Deputy PM, J Corley, ATI**
**Project Manager, Julie Pooley, Booz Allen**

**Process Definition**
**Technical Manager**
**Michelle Deane,**
**ANSI**

**Process Delivery**
**Technical Manager**
**Joyce Sensmeier,**
**HIMSS**

**Federal Agencies _must_ use the Recognized Interoperability Standards that have been harmonized by the Healthcare Information Technology Standards Panel**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Office of the National Coordinator for Health Information Technology (ONC), DHHS**

**Notice of Availability:** Secretarial Recognition of Certain Healthcare Information Technology Standards Panel (HITSP) Interoperability Specifications as Interoperability Standards for Health Information Technology

**HITSP is playing an integral role in the development of a Nationwide Healthcare Information Network (NHIN) for the United States**

THE WHITE HOUSE
PRESIDENT
GEORGE W. BUSH

**For Immediate Release**
Office of the Press Secretary
August 22, 2006

**Executive Order:**

Promote Quality and Efficient Health Care in Federal Government Administered or Sponsored Health Care Programs

Sec. 3. Agencies shall perform the following functions:

Health Information Technology -

For Federal Agencies. As each agency implements, acquires, or upgrades health information technology systems used for the direct exchange of health information between agencies and with non-Federal entities, it shall utilize, where available, health information technology systems and products that meet recognized interoperability standards.

**HITSP- Harmonized standards promote interoperability, enhance healthcare quality and contain costs**
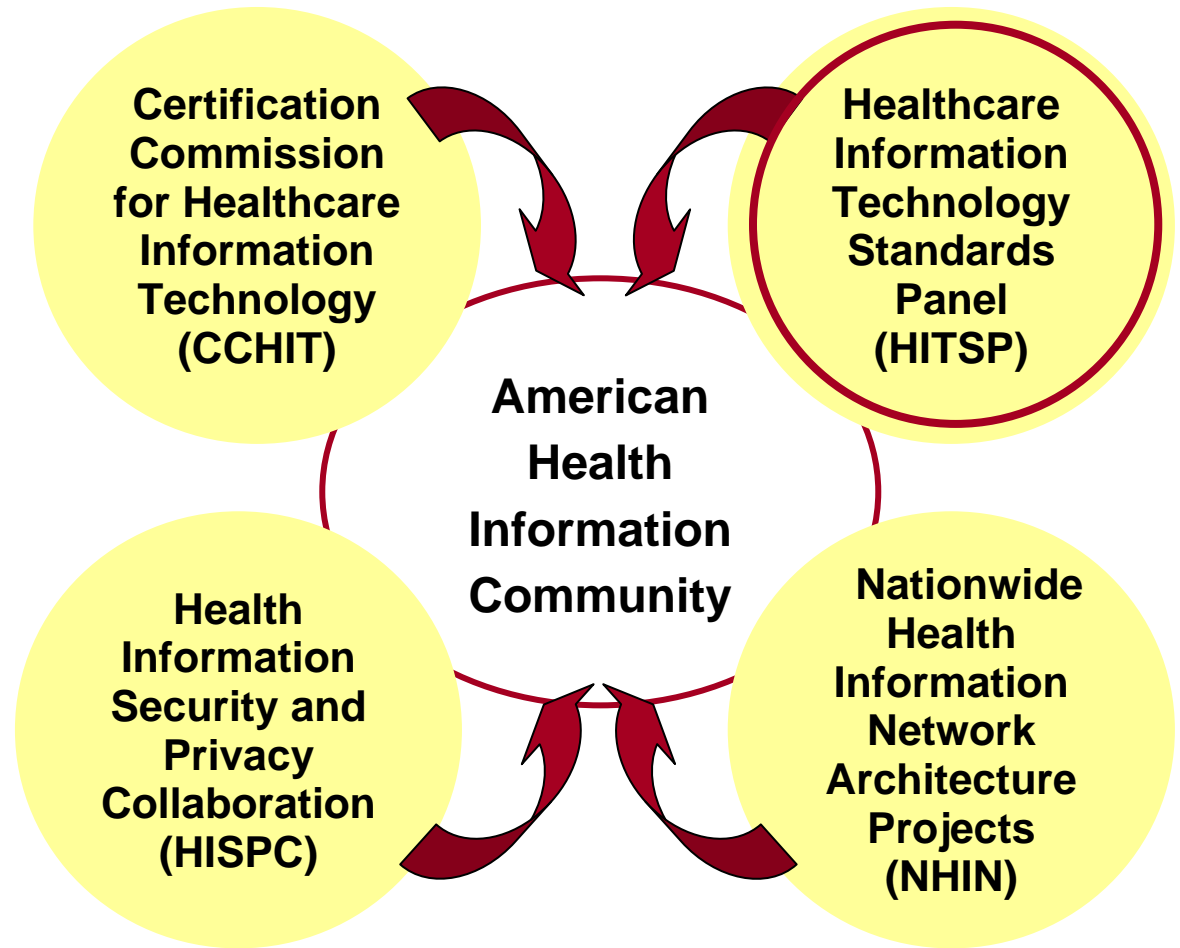
In 2005, HHS Secretary Michael Leavitt chartered a public-private "Community" to serve as the focal point for America's health information concerns and drive opportunities for increasing interoperability

The Community provides input and recommendations to HHS on how to make health records digital and interoperable, and assure that the privacy and security of those records are protected, in a smooth, market-led way.
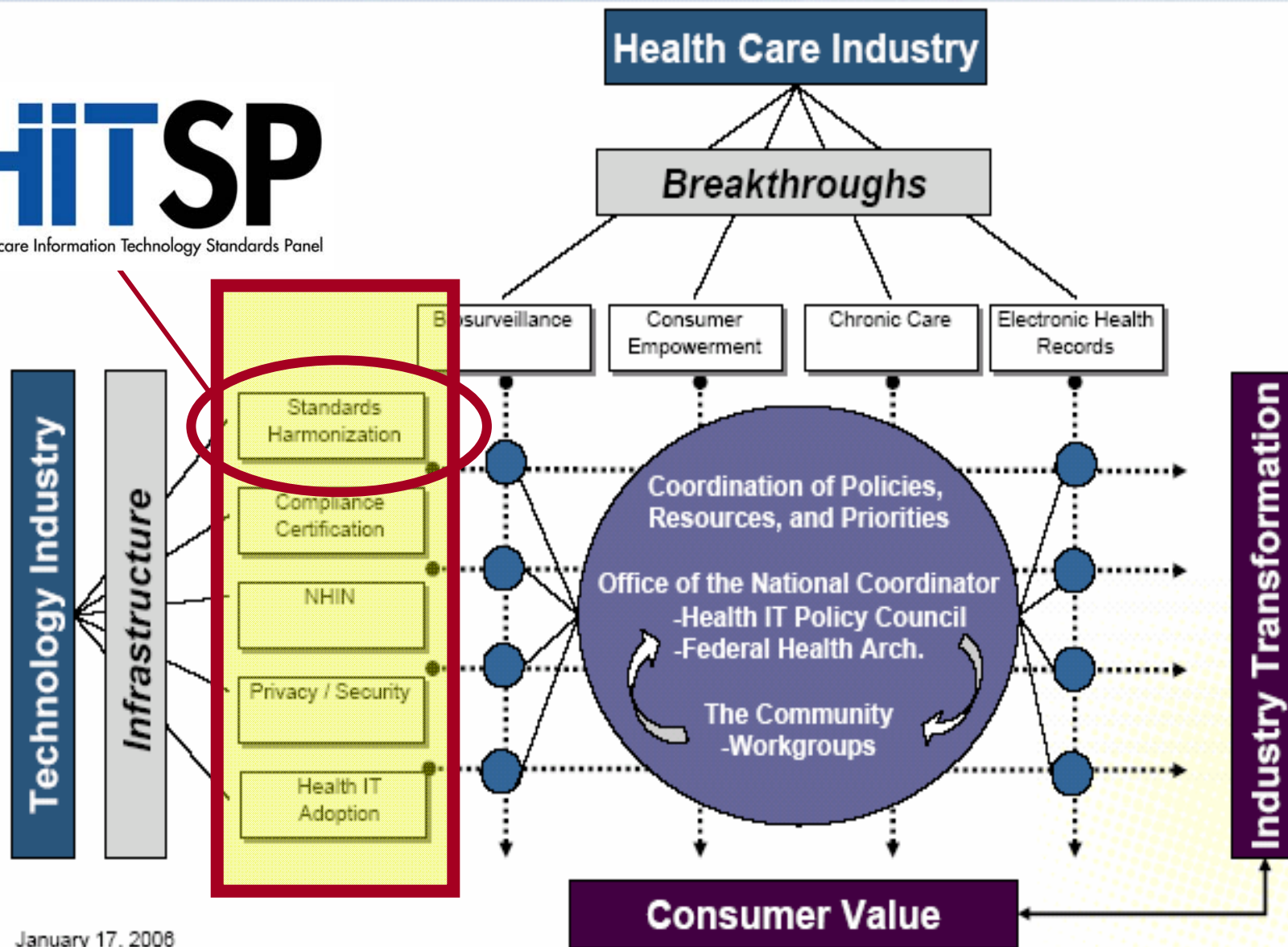
Certification Commission for Healthcare Information Technology (CCHIT)

Healthcare Information Technology Standards Panel (HITSP)

American Health Information Community

Health Information Security and Privacy Collaboration (HISPC)

Nationwide Health Information Network Architecture Projects (NHIN)

Plans are now underway to transition the AHIC to a public-private partnership based in the private sector.

# HITSP Standards Harmonization

**HiTSP**
Healthcare Information Technology Standards Panel

**Open**

**Inclusive**

**Collaborative**

**Use Case Driven**

www.hitsp.org

1. Identify a pool of standards for a general breakthrough area

2. Identify gaps and overlaps for specific context

3. Make recommendations for resolution of gaps and overlaps

4. Develop **Interoperability Specifications** for using the selected standard(s) for a specific context

5. Test the instruction for using the standard
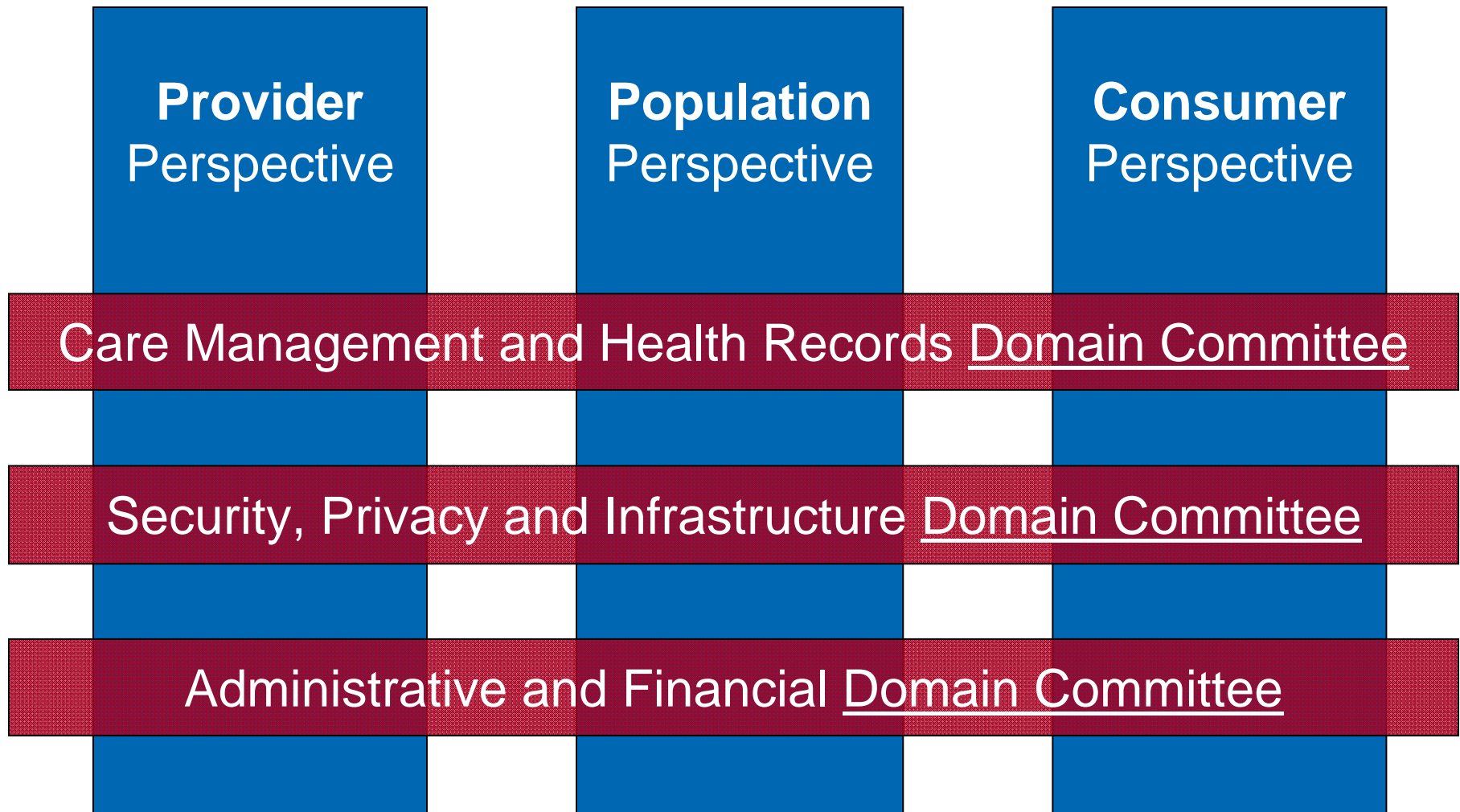
# Building a Framework for HIT Solutions



❑ **Interoperability Specifications** are intended to be used by architects and system designers as a way to guide future implementation efforts based on health IT

❑ These specifications represent an ongoing effort to create a framework/template that represents a solution set for solving the known problems related to an AHIC-defined Use Case


HiTSP
Healthcare Information Technology Standards Panel

# Provider Perspective and Domain Technical Committees Collaborate on Interoperability Specification Development
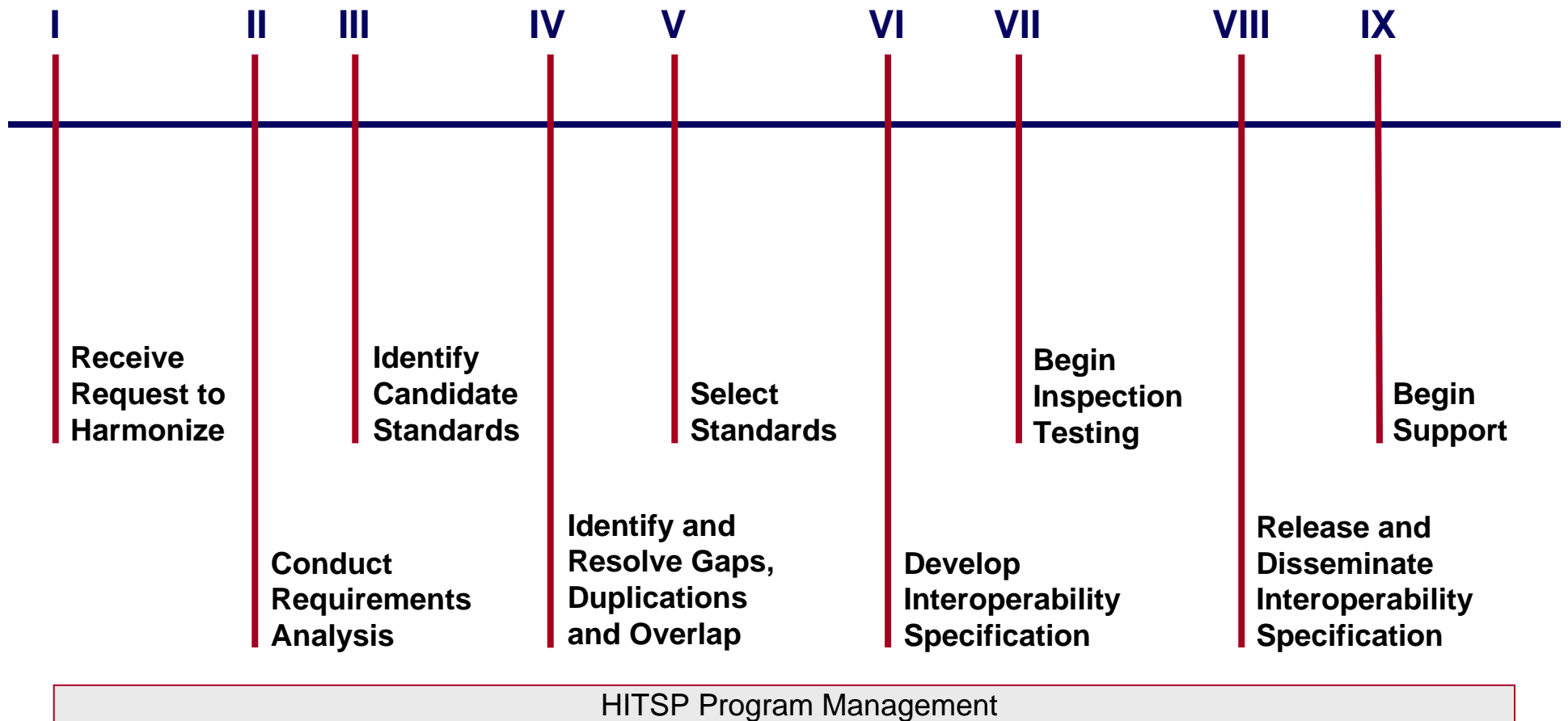
**Provider** Perspective

**Population** Perspective

**Consumer** Perspective

Care Management and Health Records Domain Committee

Security, Privacy and Infrastructure Domain Committee

Administrative and Financial Domain Committee

# Technical Committees Align with Use Cases

| | Provider Perspective | Consumer Perspective | Population Perspective |
|---|---|---|---|
| **Year 1** | • IS01 EHR – Lab Reporting | • IS03 Consumer Empowerment/ Access to Clinical Information via Networks | • IS02 Biosurveillance |
| **Year 2** | • IS04 Emergency Responder – EHR<br>• IS07 Medication Management | • IS05 Consumer Empowerment & Access to Clinical Information via Media | • IS06 Quality |
| **Year 3** | • Consultations & Transfers of Care<br>• Personalized Healthcare | • Remote Monitoring<br>• Patient - Provider Secure Messaging | • Immunizations & Response Management<br>• Public Health Case Reporting |

# Steps in the HITSP Harmonization Process

| I | II | III | IV | V | VI | VII | VIII | IX |
|---|----|-----|----|---|----|-----|------|-----|

**Receive Request to Harmonize** (I)

**Identify Candidate Standards** (III)

**Select Standards** (V)

**Begin Inspection Testing** (VII)

**Begin Support** (IX)

**Conduct Requirements Analysis** (II)

**Identify and Resolve Gaps, Duplications and Overlap** (IV)

**Develop Interoperability Specification** (VI)

**Release and Disseminate Interoperability Specification** (VIII)

HITSP Program Management

# Harmonization Framework

**Use Case**
Identifies interoperability business needs

**Technical Notes**

## Interoperability Specification

- Identifies what HITSP lower-level constructs are used to meet business needs
- Defines Requirements, Context and Constraints for those constructs
- Addresses multi-year roadmap as needed

Transaction Package

Transaction

Component

SDO

Available for Internal reuse or repurposing

| Composite Standard #1 | Base Standard #2 | Base Standard #3 | Composite Standard #4 | Base Standard #5 | Base Standard #n | Base Standard #n |
|---|---|---|---|---|---|---|

# Definitions and Rules

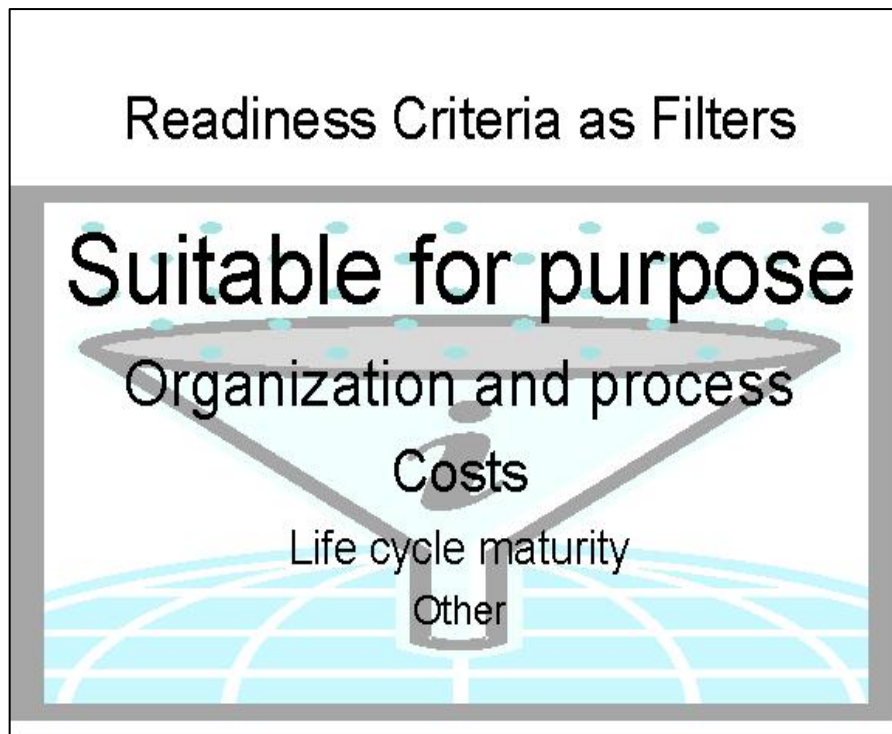| Level | Definition | Example | Rules |
|---|---|---|---|
| Use Case or Harmonization Request | ▪ Defines business/functional requirements<br>▪ Sets Context | ▪ ONC EHR- Lab Use Case | |
| Interoperability Specification | ▪ Models business/ functional/ interoperability requirements<br>▪ Identifies technical/system requirements to meet use-case<br>▪ Identifies how to use one or more HITSP constructs to meet use-case requirements | ▪ HITSP EHR – Lab Interoperability Specification (IS01) | ▪ Based on UML diagram to identify technical actors and actions<br>▪ Sets context<br>▪ Testable functional requirements<br>▪ Ids transactions or transaction packages |
| Transaction Package | ▪ Defines how two or more transactions are used to support a stand-alone information interchange within a defined context between two or more systems | ▪ Record Locator Service<br>▪ Entity Identification Service | ▪ Thin context and interoperability requirements<br>▪ Testable<br>▪ Based on analysis of like technical actors, context and content harmonized across transactions<br>▪ May be fulfilled by one or more transactions or composite standard<br>▪ Expresses constraints on the transactions or composite standard |
| Transaction | ▪ Logical grouping of actions, including necessary content and context, that must all succeed or fail as a group. | ▪ Query lab result<br>▪ Send lab result | ▪ Fulfills all actions between two or more systems needed to meet one or more interoperability requirements<br>▪ Testable<br>▪ May be fulfilled by components or composite standard<br>▪ Expresses constraints on components or composite standard |

# Definitions and Rules (cont.)

| Level | Definition | Example | Rules |
|-------|-----------|---------|-------|
| Component | ▪ An atomic construct used to support an information interchange or to meet an infrastructure requirement (e.g., security, logging/audit) | ▪ Lab result message<br>▪ Lab result context | ▪ Typically will use one "primary" standard and may have other "secondary" standards<br>▪ Expresses constraints on base or composite standards |
| Base Standard | ▪ A standard capable of fulfilling a discrete function within a single category produced and maintained by a single standards organization. | ▪ Messaging standard<br>▪ Security standard<br>▪ Code set. | Per HITSP definition the term "standard" refers, but is not limited to,:<br><br>– Specifications<br><br>– Implementation Guides<br><br>– Code Sets<br><br>– Terminologies<br><br>– Integration Profiles |
| Composite Standard | ▪ Grouping of coordinated base standards, often from multiple standards organizations, maintained by a single organization.  In HITSP, it can serve as a component, transaction or transaction package functional requirements.. | ▪ Integration profiles<br>▪ Implementation guides<br>▪ Health transaction services | Per Definition above |

# Standards Readiness Criteria Tier I



Readiness Criteria as Filters

Suitable for purpose

Organization and process

Costs

Life cycle maturity

Other

❑ The candidate standards required to support each Use Case are organized within an agreed upon standards taxonomy

❑ The candidate standards are examined using 'HITSP approved' Harmonization Readiness Criteria

# Standards Readiness Criteria Tier II

**Suitability**

The standard is named at a proper level of specificity and meets technical and business criteria of use case

**Compatibility**

The standard shares common context, information exchange structures, content or data elements, security and processes with other HITSP harmonized standards or adopted frameworks as appropriate

**Preferred Standards Characteristic**

Approved standards, widely used, readily available, technology neutral, supporting uniformity, demonstrating flexibility and international usage are preferred
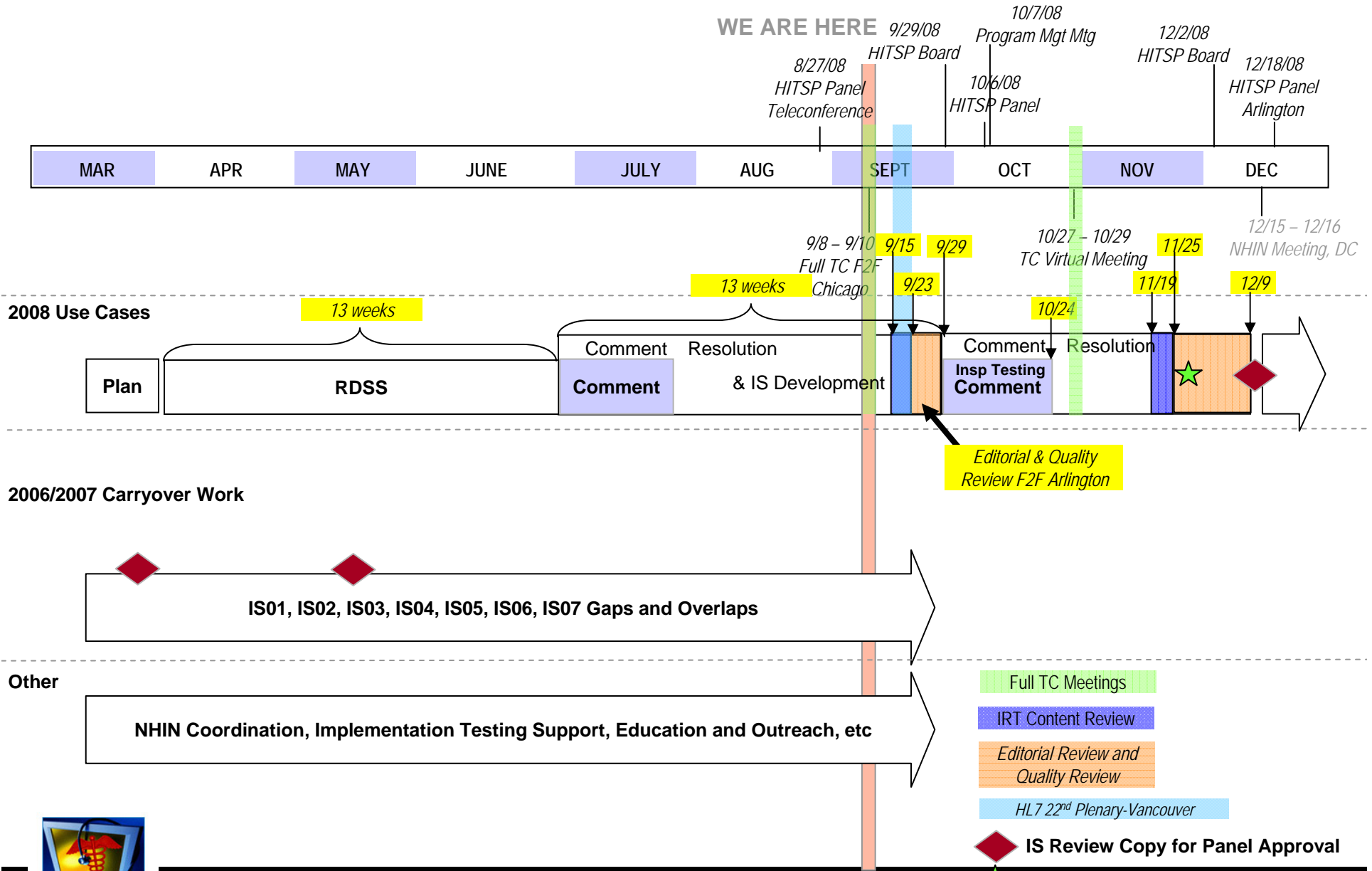
**Standards Development Organization and Process**

Meet selected criteria including balance, transparency, developer due process, stewardship and others

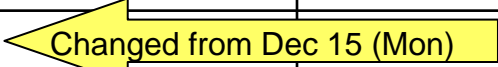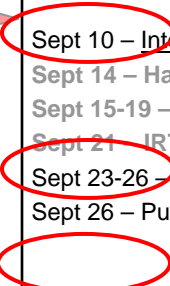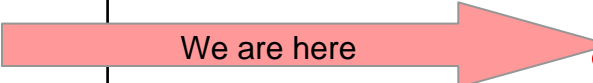**Total Costs and Ease of Implementation**

Deferred to future work

# HITSP 2008 TC Timeline Overview

WE ARE HERE

*8/27/08
HITSP Panel
Teleconference*

*9/29/08
HITSP Board*

*10/7/08
Program Mgt Mtg*

*10/6/08
HITSP Panel*

*12/2/08
HITSP Board*

*12/18/08
HITSP Panel
Arlington*

| MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|-----|-----|-----|------|------|-----|------|-----|-----|-----|

*12/15 – 12/16
NHIN Meeting, DC*

*9/8 – 9/10
Full TC F2F
Chicago*

9/15    9/29

9/23

*10/27 – 10/29
TC Virtual Meeting*

10/24

11/25

11/19    12/9

*13 weeks*     *13 weeks*

## 2008 Use Cases

| Plan | RDSS | Comment | Comment Resolution & IS Development | | Comment    Resolution | |
|------|------|---------|-------------------------------------|--|-----------------------|--|

Insp Testing **Comment**

**Editorial & Quality
Review F2F Arlington**

## 2006/2007 Carryover Work

**IS01, IS02, IS03, IS04, IS05, IS06, IS07 Gaps and Overlaps**

## Other

**NHIN Coordination, Implementation Testing Support, Education and Outreach, etc**

Full TC Meetings

IRT Content Review

*Editorial Review and
Quality Review*

*HL7 22nd Plenary-Vancouver*

**IS Review Copy for Panel Approval**

# 2008 Use Cases Detail Schedule

| Task | Dates | Interim Milestones |
|------|-------|--------------------|
| RDSS Comment Period | June 27 (Thurs) – July 25 (Fri) | 4 weeks |
| Interoperability Specification Development | June 27 (Fri) – Sept 26 (Fri) | July 11 - List of areas of change (template) from IRT to staff<br>July 18 – Template changes vetted with TC Leadership<br>July 21 – Updated templates officially rolled out to staff / TCs<br>July 31 – Tier 2 analysis to be completed (Except SPI [TBD mid-August] & CM&HR [TBD w/o impact on 8/31 date)<br>Sept 12 – Underlying Constructs completed<br><br>Sept 10 – Interoperability Specs completed<br>Sept 14 – Hand-off to IRT for Final Review<br>Sept 15-19 –IRT Final Review<br>Sept 21 – IRT Handoff to Editorial Team<br>Sept 23-26 – Editorial/Quality Teams Review F2F (Arlington)<br>Sept 26 – Publish for Public Comment |
| Insp. Test/ Comment | Sept 29 (Mon) – Oct 24 (Fri) | 4 weeks (mandatory duration; must be closed before Oct TC Mtg) |
| Resolve and Disposition Comments | Oct 27 (Mon) – Nov 26?? (Wed) | Nov 17/18 – Hand-off to IRT for Final Review<br>Nov 19-24 – Final IRT Review<br>Nov 25 – IRT Handoff to Editorial/Quality team<br>Nov 25-Dec 9 Editorial/Quality team Review (Nov 27 = Thanksgiving)<br>Dec 10 – Publish to the Panel |
| Panel Approval | Dec 18 (Thu) | Changed from Dec 15 (Mon) |

We are here

# Use Cases Year 3 – Current Work

- *Consultations & Transfers of Care* --  The exchange of information between clinicians, particularly between requesting clinicians and consulting clinicians, to support consultations such as specialty services and second opinions.

- *Personalized Healthcare -* The exchange of genomic/genetic test information, family health history and the use of analytical tools in the electronic health record (EHR) to support clinical decision-making.

- *Patient-Provider Secure Messaging*  --  Patients consult with their healthcare clinicians remotely using common computer technologies readily available in home and other settings.

# Use Cases Year 3 – Current Work

- *Remote Monitoring* – Focuses on the exchange of physiological and other measurements from remote monitoring devices in three candidate workflows: Measurement and Communication, Monitoring and Coordination, and Clinical Management.

- *Public Health Case Reporting* - Leveraging electronic clinical information to address population health data requirements.

- *Immunizations & Response Management* – The ability to communicate a subset of relevant information about needs for medication and prophylaxis resources, about resource availability, about their administration and about the status of treated and immunized populations.

# Technical Committees Leadership

❑ **Provider Perspective TC Co-chairs**

– Allen Hobbs, PhD, Kaiser Permanente, Allen.Hobbs@kp.org

– Steve Hufnagel, PhD, DoD/Medical Health System (MHS), SHufnagel@tiag.net

– Mike Lincoln, MD, Department of Veterans Affairs, michael.lincoln@va.gov

❑ **Consumer Perspective TC Co-chairs**

– Mureen Allen, MD, FACP, ActiveHealth Management mallen@activehealth.net

– Charles Parisot, EHR Vendor Association, charles.parisot@med.ge.com

– Scott Robertson, PharmD, Kaiser Permanente, scott.m.robertson@kp.org

# Technical Committees Leadership

❑ **Population Perspective TC Co-chairs**

- Floyd Eisenberg, MD, MPH, Siemens Medical Solutions, Floyd.Eisenberg@siemens.com

- Peter Elkin, MD, Mayo Clinic College of Medicine, Elkin.Peter@mayo.edu

- Anna Orlova, PhD, Public Health Data Standards Consortium, aorlova@jhsph.edu

❑ **Administrative and Financial Domain TC Co-chairs**

- Don Bechtel, Siemens Medical Solutions, donald.bechtel@siemens.com

- Durwin Day, Health Care Service Corporation dayd@bcbsil.com

- Deborah Belcher, GE Healthcare deborah.belcher@ge.com

# Technical Committees Leadership

❑ **Security, Privacy & Infrastructure Domain TC Co-chairs**

- Glen Marshall, Siemens Medical Solutions, glen.f.marshall@siemens.com

- John Moehrke, GE Healthcare, John.Moehrke@med.ge.com

- Walter Suarez, MD, Institute for HIPAA/HIT Education and Research, walter.suarez@sga.us.com

❑ **Care Management and Health Records Domain TC Convener**

- Keith Boone, GE Healthcare, keith.boone@ge.com

- Corey Spears, McKesson Health Solutions, cspears@practicepartner.com

# HITSP Facilitators and Technical Writers

❑ **Provider Perspective Technical Committee**

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– Michael Glickman, Computer Network Architects, Inc., mglickman@CNAInc.com

– Gila Pyke, Patriot Technology, gilapyke@rogers.com

❑ **Consumer Perspective Technical Committee**

– John Donnelly, IntePro Solutions, Inc., jtdonnelly@intepro.biz

– Mike Nusbaum, M.H. Nusbaum & Associates Ltd., michael@mhnusbaum.com

❑ **Population Perspective Technical Committee**

– Lori Reed-Fourquet, e-HealthSign LLC, Lori.fourquet@sbcglobal.net

– Fran Corley, Sage Consulting, corleyfg@bellsouth.net

# HITSP Facilitators & Technical Writers

❑ **Security, Privacy & Infrastructure Domain Technical Committee**

- Johnathan Coleman CISM, CISSP, Security Risk Solutions, Inc., jc@securityrisksolutions.com

- Sarah Quaynor, ANSI, sarah.quaynor@GSIHEALTH.COM

❑ **Administrative and Financial Domain Technical Committee**

- Theresa Wisdom, HIMSS, twisdom@himss.org

❑ **Care Management and Health Records Domain Technical Committee**

- Gene Ginther, Stellar Systems, ginther@stellarsystems.com

- Don Van Syckle, DVS Consulting, don@dvsconsult.com

# HITSP Coordinating Committees and Leadership

- **Foundations Committee**
  - Bob Dolin

- **HITSP Process Review Committee**
  - Lynne Gilbertson
  - Erik Pupo

- **HITSP-CCHIT Joint Work Group**
  - Jamie Ferguson

- **Harmonization Readiness Committee**
  - Lynne Gilbertson

- **International Landscape Committee**
  - Bill Braithwaite

- **Governance Committee**
  - Michael Aisenberg

- **Internal Review Team (IRT)**
  - Erik Pupo
  - Charles Parisot

# Perspective Technical Committees
## Terms of Reference

❑ Review each new Use Case or Interoperability Request, provide feedback to requestor, evaluate scope of effort and develop statements of work for completion

❑ Perform high level design of Interoperability Specifications and lower level constructs including requirements analysis, standards selection and minimum data set identification

❑ Submit recommendations to Panel for review, approval and resolution

❑ Identify Domain Committee(s) and provide high level design and statements of work to guide construct development

❑ Develop, review and evaluate Interoperability Specifications for the selected standards, integrating relevant constructs

❑ Manage overall execution plan/schedule in collaboration with Domain Committees

❑ Ensure timely response and disposition of public comments

❑ Ensure on-going process for addressing corrections/change requests and resolutions

# Domain Technical Committees
## Terms of Reference

- ❑ Identify and analyze gaps and duplications within the standards industry as they relate to domain constructs
  - – Describe gaps, including missing or incomplete standards
  - – Describe duplications, overlaps, or competition among standards
- ❑ List all standards that satisfy requirements imposed by the relevant Use Case or Interoperability Request and apply readiness criteria
- ❑ Interact with HITSP Secretariat for coordination with Standards Organization regarding standards gaps, overlaps, and identification of standards
- ❑ Evaluate, select and constrain recommended standards
- ❑ Receive and prioritize statements of work and collaborate with Perspective Committees to refine scope and develop work plan
- ❑ Develop and/or revise domain constructs to meet requirements, high level design and statements of work
- ❑ Maximize reuse with consideration for backwards compatibility
- ❑ Ensure domain constructs adequately support all Interoperability Specifications referencing those constructs
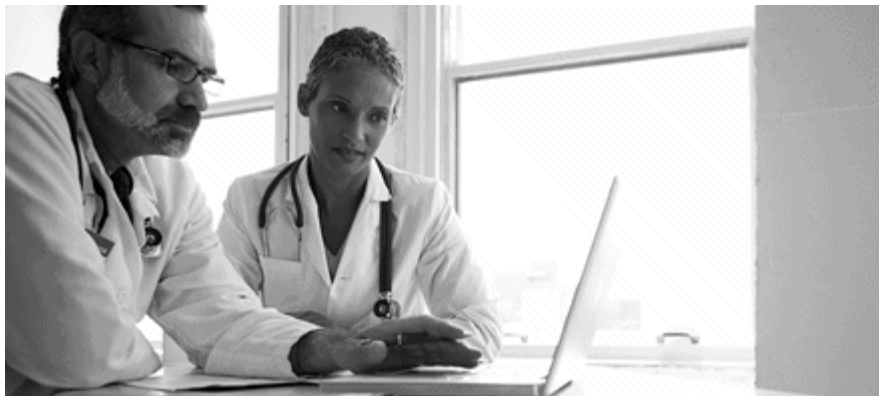- ❑ Work in collaboration with Perspective Committees to meet project schedule and timelines

**Joint Working Group**

**Healthcare Information Technology Standards Panel (HITSP)**

**and the**

**Certification Commission for Healthcare Information Technology (CCHIT)**

Between the federal implications and the certification efforts of <u>CCHIT</u>, stakeholders will be motivated to adopt a standard way of sharing data throughout the Nationwide Health Information Network, leading to better healthcare for us all.

# Trial Implementations
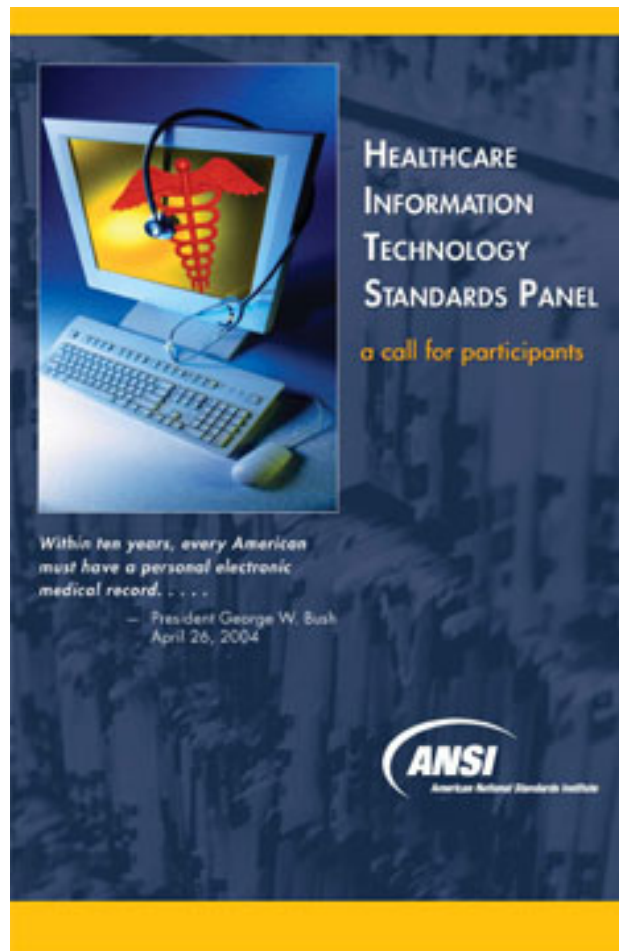
United States Department of
Health & Human Services

HHS has awarded $22.5 million in contracts to nine HIEs to begin trial implementations of the NHIN

- **CareSpark**
  Tri-Cities region of Eastern Tennessee and Southwestern Virginia

- **Delaware Health Information Network**
  Delaware

- **Indiana University**
  Indianapolis Metroplex

- **Long Beach Network for Health**
  Long Beach and Los Angeles, California

- **Lovelace Clinic Foundation**
  New Mexico

- **MedVirginia**
  Central Virginia

- **New York eHealth Collaborative**
  New York

- **North Carolina Healthcare Information and Communications Alliance, Inc.**
  North Carolina

- **West Virginia Health Information Network**
  West Virginia

- **Federal Health Consortium**
  Federal health agencies

# HITSP Information Resources



HEALTHCARE
INFORMATION
TECHNOLOGY
STANDARDS PANEL

a call for participants

Within ten years, every American
must have a personal electronic
medical record. . . . .
— President George W. Bush
April 26, 2004

ANSI
American National Standards Institute

❑ Also available on www.hitsp.org

- – News, organizational details and information on upcoming meetings

- – HITSP Public Document Library

- – Interoperability Specifications (ISs) and Executive Summaries

- – Use Cases
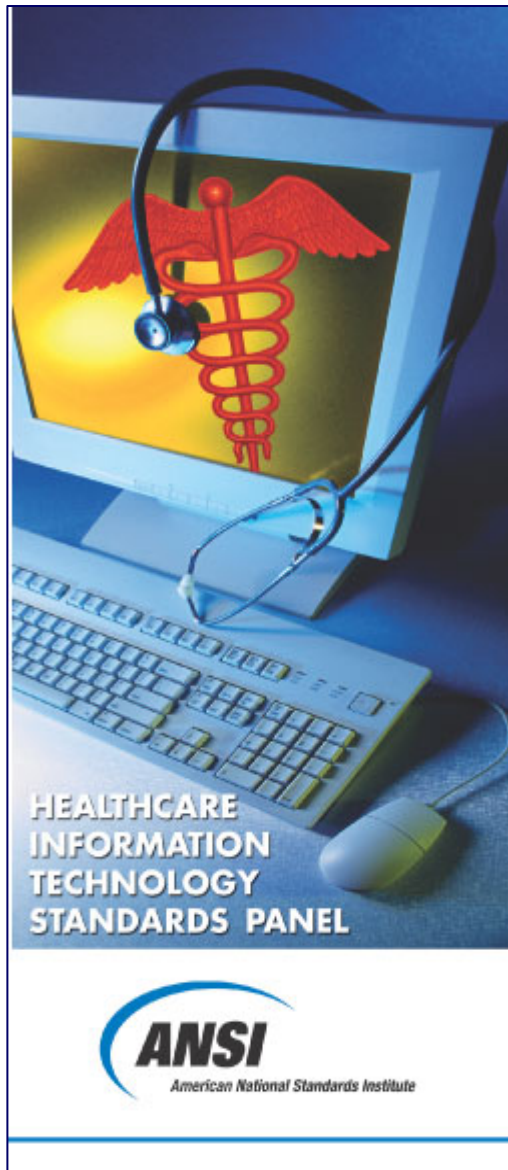
**Join HITSP in developing a safe and secure health information network for the United States.**

Learn more at **www.hitsp.org** or contact . . .

Michelle Deane, ANSI
mmaasdeane@ansi.org

**Re: HITSP, its Board and Coordinating Committees**

Jessica Kant, HIMSS          Theresa Wisdom, HIMSS
jkant@himss.org              twisdom@himss.org

**Re: HITSP Technical Committees**
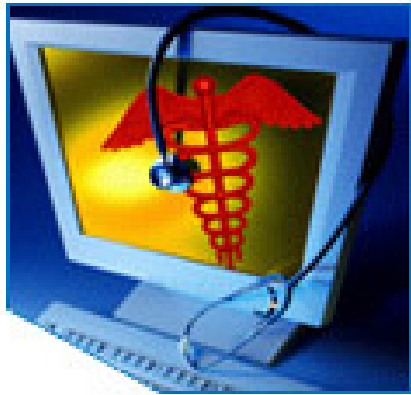
# HiTSP
## Healthcare Information Technology Standards Panel

**Sponsor**

**Strategic Partners**



ANSI
American National Standards Institute

ATI
Advancing Technology through Collaboration

Booz | Allen | Hamilton

HiMSS
transforming healthcare through IT