
Health IT Strategic Framework:

- Strategic Themes, Principles, Objectives, and Strategies

**Office of the National Coordinator for
Health Information Technology**

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Version 31

I. BACKGROUND & CHARGE

A. HITECH Act Direction and Authorization

On February 17, 2009, the President signed the American Recovery and Reinvestment Act of 2009 (ARRA). This statute includes the Health Information Technology for Economic and Clinical Health Act of 2009 (the HITECH Act) that sets forth a plan for advancing the meaningful use of health information technology (HIT) to improve quality of care and establish a foundation for health care reform.

The HITECH Act requires the Office of the National Coordinator for Health Information Technology (ONC), in consultation with other appropriate Federal agencies, to update the Federal Health IT Strategic Plan published in June 2008. The 2008 Strategic Plan focused on the 2008 – 2012 timeframe and was intended “to guide the nationwide implementation of interoperable health information technology in both the public and private health care sectors that will reduce medical errors, improve quality, and produce greater value for health care expenditures.”

The statute states that the update to the Health IT Strategic Plan shall include specific objectives, milestones, and metrics with respect to the following:

1. The electronic exchange and use of health information and the enterprise integration of such information.
2. The utilization of an electronic health record for each person in the United States by 2014.
3. The incorporation of privacy and security protections for electronic exchange of an individual’s individually identifiable health information.
4. Ensuring security methods to ensure appropriate authorization and electronic authentication of health information and specifying technologies or methodologies for rendering health information unusable, unreadable, or indecipherable.
5. Specifying a framework for coordination and flow of recommendations and policies under this subtitle among the Secretary, the National Coordinator, the HIT Policy Committee, the HIT Standards Committee, and other health information exchanges and other relevant entities.
6. Methods to foster the public understanding of health information technology.
7. Strategies to enhance the use of health information technology in improving the quality of health care, reducing medical errors, reducing health disparities, improving public health, increasing prevention and coordination with community resources, and improving the continuity of care among health care settings.
8. Specific plans for ensuring that populations with unique needs, such as children, are appropriately addressed in the technology design, as appropriate, which may include technology that automates enrollment and retention for eligible individuals.

The HITECH Act included commitment of significant federal funding to provide incentives for nationwide adoption and use of certified electronic health record (EHR) technology and to support health information exchange. The HITECH Act also expanded authorities of ONC.

The Health IT Strategic Framework described here will establish the foundation for the Update to the Federal Health IT Strategic Plan.

B. Prior efforts in strategic planning within ONC

- The 2004 Strategic Framework
- The 2008 Strategic Plan
http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_10731_848083_0_0_18/HITStrategicPlan508.pdf

II. STRATEGIC PLANNING SCOPE and APPROACH

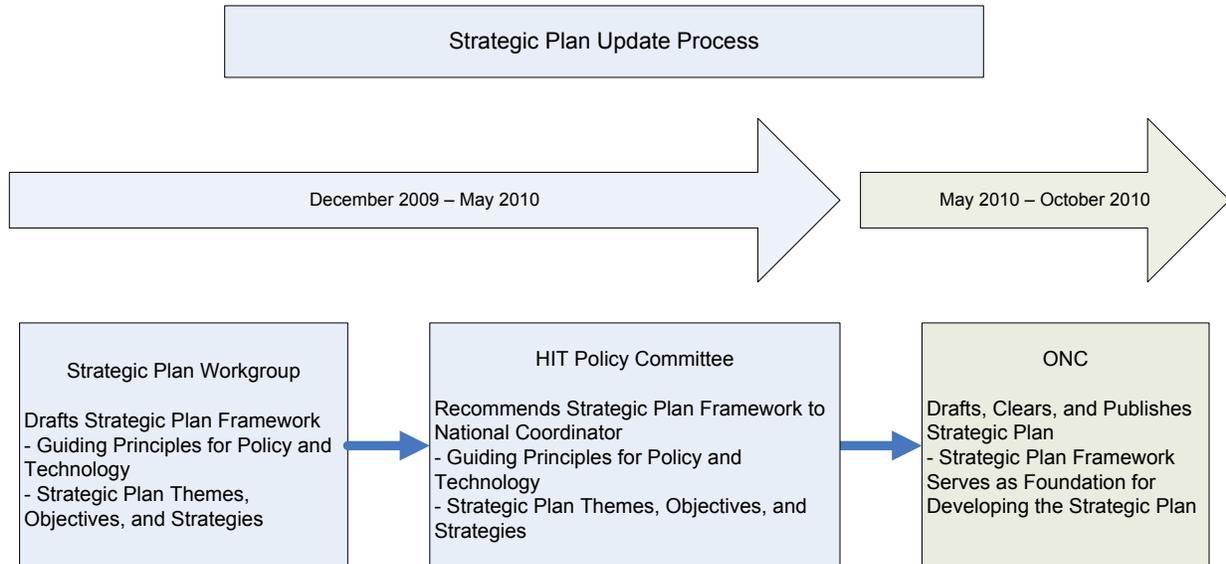
A. Strategic Planning Scope

- The Federal Health IT Strategic Plan Update will encompass three levels:
 - The full array of entities in the public and private sectors who have a role in affecting and implementing the use of HIT to improve health and health care;
 - The broad array of Federal HIT policies, regulations, systems, and activities; and
 - The specific mandate, authorities, and role of the ONC.
- The Update will emphasize the implementation of legislative imperatives to achieve widespread adoption and meaningful use of HIT.
- The Update will also focus on features that would be essential to continue the adoption and value of HIT beyond ARRA funding.
- The Health IT Strategic Plan Update will focus on 2011 through 2015 time period.
- It will also focus on laying the ground work for the period beyond 2015 to create a learning health system through the effective use of HIT.

B. The update process will include guidance from the HIT Policy Committee Strategic Plan Workgroup and Federal agencies.

- ONC will lead the update process and update the Federal Health IT Strategic Plan.
- The planning process will be participatory with broad involvement across the health care sector with opportunities for public input and discussion.
- The HIT Policy Committee Strategic Plan Workgroup will be chartered to inform the Strategic Plan development and provide the vehicle through which private and public input and coordination will be achieved.
- An appropriate coordinating vehicle will be used to allow Federal agencies to participate in Strategic Plan update development.
- A Health IT Strategic Framework will be developed by the Workgroup, with input from other stakeholders, which will include recommendations regarding key themes, goals, principles and objectives, and outline options for inclusion in the Strategic Plan.
- The planning process will include priorities and initiatives that are achievable.
- This Health IT Strategic Framework will provide the foundation for the Federal Health IT Strategic Plan Update.
- This Health IT Strategic Framework will be published for public review and comments to be provided during the listening session and through Blog.

- One listening session will be held by the Strategic Plan Workgroup to engage wider community in the Strategic Plan development process.
- ONC will develop the Federal Health IT Strategic Plan and obtain all necessary clearances for the Federal Health IT Strategic Plan.



III. VISION AND PREAMBLE

Vision – *A learning health system* is a system that is designed to generate and apply the best evidence for the collaborative health care choices of each patient and provider; to drive the process of new discovery as a natural outgrowth of patient care; and to ensure innovation, quality, safety, and value in health care.

A learning health system focuses on the needs of individuals and population health and aims to create a health system that is Patient-centered, Safe, Timely, Effective, Efficient, Equitable. An effective learning health system is where individuals can make informed decisions about their health and health care; patients can exercise choices about sharing of their data; decision makers have access to the right information at the right time in a secure environment; the health delivery system is more efficient; and the health care industry continues to improve population health.

Health Information Technology (HIT) provides a critical infrastructure for an effective learning health system. HIT offers tools that can expand current capabilities to collect and manage data that can help creation of a sustainable system that facilitates getting the right care to people when they need it and then captures the results for improvement in care, and create and share knowledge.

Despite the important role of HIT to a learning health system, only a small number of health care organizations have implemented a comprehensive EHR. Getting to widespread adoption and use of HIT is one component of a reformed system – necessary, but not sufficient to effect, the broad change needed in our health system.

Inherent in the vision of a learning health system is a set of values that provide the foundation for public policies at the Federal and state levels aimed at reforming and improving the health system. The HITECH Act specifies this broader set of values and helps to focus Federal health policy regarding information technology in the following areas:

- Improving privacy and security protections for health information;
- Facilitating individual access to his or her health information;
- Improving quality of health care by improving care coordination, reducing medical errors, reducing chronic disease, reducing health disparities, improving population health, and advancing research and education;
- Addressing the needs of children and other vulnerable populations;
- Collecting information for quality reporting, biosurveillance, public health, medical and clinical research, and drug safety; and
- Improving efficiency and reducing the burden on patients and health care professionals.

The HIT policies and programs of ONC and its Federal partners aspire to achieve this vision and its inherent values, leveraging the programs authorized by the HITECH Act. To achieve this vision, a transformation of our current health care delivery system is required.

To begin this transformation, the Federal government proposed a set of priorities for meaningful use of HIT which can also be applied broadly to help achieve the vision. They include:

- Improve quality, safety, efficiency and reduce health disparities;
- Engage patients and families in their health care;
- Improve care coordination;
- Improve population and public health; and
- Ensure adequate privacy and security protections for personal health information.

Implicit in enabling the HITECH Act and addressing the health priorities are a number of roles that only the Federal government can play in promoting the adoption and use of HIT. One key role involves the provision of resources to support the public-good infrastructure (serving public health, biomedical research, quality improvement, and emergency preparedness). The government also has a role to play when information asymmetries hinder the development of a private market. The efforts involving standards, implementation specifications, and certification criteria are a solution to such problems. Government action is also necessary to spur the adoption of HIT and the development of means for health information exchange to assure the critical mass of users necessary to create a self-sustaining system of interoperable HIT. Finally, working to improve the efficiency of public and population health programs is clearly a government responsibility.

The Health IT Strategic Framework enumerates critical government roles in the pursuit of a health system that uses information to empower individuals and to improve the health of the population.

Preamble to Strategic Framework

In the development of the Strategic Framework, the Strategic Plan Workgroup deliberated on many key issues and challenges. The deliberations involved juggling many conflicting ideas such as the importance of addressing short-term needs in the face of longer-term uncertainties; finding the right balance between technology innovations, regulatory approaches, and other constraints and risks associated with use of information technology; and others.

As such, there are several key areas that will need continued discussion. Among the topics discussed during the development of this Framework were the following:

- Transparency and Access – ensuring that patients have access to information and knowledge to make informed decisions about their care;
- Personal Choice – finding the right balance between patient privacy and patient choice i.e., some patients do not want their data shared whereas some patients do not mind sharing or want to share their information for research, improved care, and/or for the betterment of society;
- Public Engagement – allowing for continued public discussion and debate on current and emerging health care issues that cannot be resolved easily or through easy technology solutions;
- Technology Innovation – learning from the impact that the internet and social networking has had on our daily lives, and leaving flexibility for how technical innovations may change the delivery of health care; capitalizing on the promise of emerging new technologies while preserving the rights of individuals;
- Support for Research – putting in place appropriate policies and technical infrastructure to allow researchers to access data to support new discoveries and treatments while protecting individual privacy; and
- Unintended Consequences – allowing for processes to capture and learn from unanticipated adverse consequences of HIT use, and developing actions to mitigate and prevent untoward effects.

This Framework is intended to set an approach and priorities for moving forward, rather than identifying a complete set of actions that would facilitate widespread adoption and use of HIT. This Framework describes strategies and HIT infrastructure that can serve as a foundation for developing programs that enhance the quality of health care, population health, privacy and security protections, and other values inherent in the vision.

The proposed Federal HIT strategies are grouped into four Themes: 1) Meaningful Use of Health Information Technology, 2) Policy and Technical Infrastructure, 3) Privacy and Security, and 4) Learning Health System. Themes 1, 2 and 3 focus on establishing the foundation and infrastructure to support a learning health system and Theme 4 focuses on leveraging these resources to create a learning system. These themes are interrelated and must work together to achieve the vision set forth in this Framework. Theme 1 focusing on Meaningful Use describes steps towards using HIT to improve care and support a learning health system. Themes 2 and 3 focus on the infrastructure for HIT. Theme 2 focuses on Policy and Technology infrastructure that is necessary to support Meaningful Use as well as the learning health system for broader

HIT i.e. not only EHR but also health information exchange, and other HIT components. Theme 3 addresses Privacy and Security issues and challenges related to broader HIT as well. Finally, Theme 4 focuses on leveraging these resources to create a learning health system.

Each Theme, described below, includes a goal, guiding principles, objectives and strategies. The ONC strategic plan will include specific tactics and measures for each Theme.

IV. STRATEGIC THEMES

Theme 1: Meaningful Use of Health Information Technology

- a. **Goal:** Improve health outcomes, quality, patient safety, patient engagement, care coordination, and efficiency of the health care system through the adoption and meaningful use of health information technology.
- b. **Principles**
1. Focus on health outcomes aligned with national health priorities set by national consensus groups.
 2. Use Federal policy levers and ARRA programs to develop meaningful use criteria that align the HIT adoption programs with national health priorities.
 3. Include patients and caregivers as primary participants in health information sharing.
 4. Balance achievability by a broad array of health care professionals with the urgency needed to stimulate significant progress toward improved health and health care.
 5. Stage meaningful use criteria to provide a glidepath for phased implementation that avoids dead-ends.
 6. Prioritize use of resources to provide support to areas and providers that have the greatest need.
- c. **Objectives**
1. By 2014, capture, manage, and meaningfully use health information to improve the health and health care for all individuals.
 2. Leverage public sector resources and policy levers in coordination with the private sector to accelerate adoption of proven HIT that achieves health outcome goals.
 3. Target HIT investments to address national high priority health issues. Use exemplars to “exercise” the entire HIT system and human interaction, and measure the health-outcome results.
 4. Facilitate appropriate and secure exchange of health information to improve individual and population health and reduce disparities by providing decision makers (including patients, consumers and health care professionals) access to the right information at the right time.
 5. Advance and promote HIT to inform and engage patients and caregivers in shared decision making on matters related to patients’ health and health care.
 6. Improve efficiency in the health care system and reduce administrative burden on providers and patients through HIT.

d. *Strategies*

1. Develop, monitor, and maintain a progressive meaningful-use roadmap – from data capture and exchange, to advanced clinical processes, to improvement in health outcomes.
 - Use national health priorities for which effective use of HIT has demonstrated impact to guide selection of future criteria for assessing the meaningful use of HIT.
 - Use ongoing surveillance of program accomplishments to update roadmap timetable and meaningful use criteria.
 - Identify and characterize barriers to timely progress.
 - Align ONC program objectives and cooperative agreements to overcome identified and emerging barriers.
2. Promote the participation of all members of the health team.
 - Actively support primary care providers and other smaller providers, rural, and safety net providers to achieve meaningful use of certified EHR technology.
 - Encourage health care professionals not eligible for meaningful use incentives to achieve meaningful use and improve health outcomes.
 - Facilitate development of HIT to support care communication and coordination among consumers and their health care professionals.
3. Increase and support a trained workforce to implement, operate, and effectively use HIT technologies to improve health.
4. Develop a comprehensive communication strategy to inform consumers about the benefits of HIT and engage them in effective use of health information to promote self management and self efficacy, prevent disease, and manage chronic conditions.
5. Promote increased usability in certified EHR technology and other HIT products.

Theme 2: Policy and Technical Infrastructure

a. *Goal:* Enable management and secure exchange of electronic health information to meet goals in Themes 1 and 4 through the development and support of appropriate policies and technical specifications.

b. *Principles*

1. Policies and technical specifications required and/or promoted by the Federal government should, at a minimum, allow providers to achieve meaningful use of HIT.
2. The Federal government should leverage market innovation in information and communications technologies to foster appropriate health information exchange.
3. Effective health information exchange should enable all participants in the exchange, including patients, to contribute toward achieving meaningful use.
4. Policies and technical specifications should be kept as simple as possible and be designed for implementation by all participants.
5. Policies and technical specifications should make possible and promote increased patient engagement and access.

c. Objectives

1. Establish policies, standards, implementation specifications and certification criteria that incrementally enhance the interoperability, functionality, utility, and security of HIT and that support its meaningful use.
2. Encourage, and facilitate development of market-sustainable mechanisms that ensure reliable, secure, and protected exchange of health information to improve health and health care.
3. Increase market confidence in EHRs and other HIT products and solutions that support meaningful use health outcomes.
4. Increase the nationwide capability for health information exchange to enable meaningful use of HIT and a learning health system.

d. Strategies

1. Identify and prioritize types of data for transmission, including the capability for bidirectional exchange where appropriate, that facilitate improvement in national health priorities (including research, population health, public health, comparative effectiveness research, quality reporting, performance measurement, etc.). Ensure that the infrastructure (e.g., standards, policies, practices) is in place to support secure exchange of data.
2. Assess and adopt standards, implementation specifications and certification criteria that incrementally enhance the interoperability, functionality, utility, and security of HIT (including EHRs, and to the extent appropriate, PHRs, mobile health, home monitoring devices, etc.).¹
3. Establish and maintain a certification program for purposes of performing testing and certification of EHR technology.
4. Engage public-private sectors discussions and support demonstration projects, where appropriate, to explore incentives, penalties, and other mechanisms to help increase business demand and public support for exchange and encourage a plurality of exchange architectures that are cost effective and sustainable. Coordinate and leverage Federal and States policies and efforts toward this effort.²
5. Adopt and promote a core set of policies and needed publicly accessible standards, protocols, legal agreements, specifications, and services – that enable the secure exchange of health information over the Internet to support clinical care and public health, quality improvement, biomedical research, and emergency preparedness.
6. Assess and address patient safety concerns that may arise from HIT.

¹ Theme 2; Strategy #2: This strategy of incremental enhancement means moving from secure and appropriate routing of information toward semantic interoperability over time to enable higher levels of health information exchange. It is anticipated that these higher levels of health information exchange will be required to support meaningful use of HIT and achieve the desired health outcomes. To move toward semantic interoperability, the Federal government will identify, harmonize and commission the development of standards (as needed). The Federal government also will also need to ensure that adopted standards and related certification criteria evolve in response to feedback from use, advances in science, and changes in the health care and public health requirements.

² Theme 2; Strategy #4: A learning health system requires exchange of health information to support it. Identifying ways to support exchange that are sustainable in the private sector is important to achieving the vision of a transformed health care system. Beyond the initial Federal investment from HITECH, a private sector market will need to develop that can sustain health information exchange. That said, there will be an ongoing role for the government to support certain types of health information exchange such as public health.

7. Encourage development of innovative technologies (e.g., telehealth, mobile health) that support care communication and coordination among consumers and their health care professionals.
8. Collaborate with Federal partners to expand broadband access to support health and health care.

Theme 3: Privacy and Security

a. **Goal:** Build public trust and participation in HIT and electronic health information exchange by incorporating effective privacy and security solutions in every phase of its development, adoption, and use.

b. **Principles**

1. Privacy and security solutions should be consistent with the *Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information*.

http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_10731_848088_0_0_18/NationwidePS_Framework-5.pdf

- *Individual Access* – Individuals should be provided with a simple and timely means to access and obtain their individually identifiable health information in a readable form and format.
- *Correction* – Individuals should be provided with a timely means to dispute the accuracy or integrity of their individually identifiable health information, and to have erroneous information corrected or to have a dispute documented if their requests are denied.
- *Openness and Transparency* – There should be openness and transparency about policies, procedures, and technologies that directly affect individuals and/or their individually identifiable health information.
- *Individual Choice* – Individuals should be provided a reasonable opportunity and capability to make informed decisions about the collection, use, and disclosure of their individually identifiable health information.
- *Collection, Use, and Disclosure Limitation* – Individually identifiable health information should be collected, used, and/or disclosed only to the extent necessary to accomplish a specified purpose(s) and never to discriminate inappropriately.
- *Data Quality and Integrity* – Persons and entities should take reasonable steps to ensure that individually identifiable health information is complete, accurate, and up-to-date to the extent necessary for the person’s or entity’s intended purposes and has not been altered or destroyed in an unauthorized manner.
- *Safeguards* – Individually identifiable health information should be protected with reasonable administrative, technical, and physical safeguards to ensure its confidentiality, integrity, and availability and to prevent unauthorized or inappropriate access, use, or disclosure.
- *Accountability* – These principles should be implemented, and adherence assured, through appropriate monitoring and other means and methods should be in place to report and mitigate non-adherence and breaches.

2. Solutions should enhance privacy and security while facilitating the appropriate access, use and exchange of health information to achieve health outcomes.
3. Privacy and security solutions should be flexible to adapt to evolving technical capabilities over time.

c. Objectives

1. Develop, promote and enforce privacy and security laws and appropriate policies for all aspects of HIT and health information exchange.
2. Increase understanding, implementation, and enforcement of policies and practices to protect the privacy and security of health information.
3. Review existing privacy and security laws to identify the need for potential modifications and policies to align with emerging HIT and health information exchange capabilities.
4. Support availability of accurate electronic health information through safe and reliable health IT.
5. Increase consumer engagement in health maintenance, health care and accuracy of electronic health information through widespread consumer access.

d. Strategies

1. Assess and implement, as appropriate, federal policies related to key privacy and security issues for the broad use of health information and communications technologies amongst all parties that access or exchange health data for individual or population health.
 - Implement HIPAA modifications included in HITECH.
 - Provide transparency of reported breach notifications, and analyze reported breaches to identify common issues that can inform future privacy and security policies.
 - Assess the extent to which lawful and unlawful uses and disclosures of health information can cause harm to individuals (such as through discrimination) and identify, and implement where possible, new policies that would limit these uses and disclosures to help resolve privacy concerns.
 - Assess HIT security vulnerabilities and develop initiatives to mitigate these vulnerabilities.
 - Assess existing privacy and security protections for non-HIPAA covered entities and address needed protections.
 - Incorporate privacy and security policies in meaningful use criteria and adopted standards, implementation specifications, and certification criteria.
2. Explore and promote, where appropriate, existing and emerging technologies to enhance privacy and security.
3. Actively engage States to harmonize privacy laws or exchange policies where it is essential to advancing the national health priority goals.
4. Implement federal privacy and security policies through guidance and HIT programs.
 - Develop, disseminate, and promote specific best practices and guidance for hospitals and health care professionals on the implementation of privacy and security policies defined in the *Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information*.
 - Promote privacy and security practices through exchange efforts tied to federal efforts (e.g., NHIN, State HIE grants, and state health policy consortium).

5. Promote an environment of accountability through public education and effective and fair enforcement of legal requirements.
6. Develop and maintain a national education initiative to increase consumer knowledge about the benefits of health information exchange and to broaden the national dialogue on privacy and security issues and to enhance public transparency regarding the uses of protected health information and individual's rights with regard to protected health information.

Theme 4: Learning Health System

a. Goal: Transform the current health care delivery system into a high performance learning system by leveraging health information and technology.

b. Principles

1. Health information should be used to facilitate rapid learning and innovation in diagnosis, treatment, and decision making to improve health outcomes and to enhance health system value.
2. HIT should help engage patients and providers to take active roles in creation and application of evidence-based care.

c. Objectives

1. Use HIT methodologies, policies and standards to foster creation of knowledge across a large network of distributed data sources, while protecting privacy and confidentiality.
2. Engage public- and private-sector stakeholders at the national, regional, and local levels to effectively leverage data and human resources to advance care delivery, align payment with outcomes, conduct research (e.g., clinical research, comparative effectiveness research), enhance public health (e.g., drug safety monitoring, outbreak surveillance), educate professionals and the public (e.g., K-12, colleges, professional schools, professional lifelong learning) and leverage social services to promote and maintain community health.
3. Support individuals' decisions to allow use of their data for societal benefit (e.g., research and public health), while protecting their individual privacy.
4. Leverage data from populations to expand knowledge and promote scientific discoveries that advance the understanding of health, disease, and treatments.

d. Strategies

1. Continuously evaluate successes and lessons learned through HIT adoption, and actively incorporate best practices into the HIT programs and services.
 - Provide mechanisms to assess and continuously improve EHR safety. Explore and develop EHR safety measures and reporting mechanisms as learning processes to improve the safety of EHRs.
2. Reward, showcase, and leverage industry best practices and innovative uses of HIT to create an active community learning system that supports advances in health promotion

and treatment of diseases in the US. Make knowledge and technology accessible to health care professionals and consumers.

3. Engage all levels of the public and private sectors, along with the international community, in coordinated activities to advance population health (public health, biomedical research, quality improvement, and emergency preparedness) by using common policies, standards, protocols, legal agreements, specifications, and services for data sharing and building knowledge.
4. Stimulate and support innovations in care delivery, performance measurements, genomics, and comparative effectiveness through HIT.
 - Support research and development activities to overcome obstacles that impede creation of learning systems.
5. Incorporate the global health dimension into the interoperability requirements of the learning system infrastructure.
6. Harmonize the meaningful-use requirements with the dual needs of population health (clinical research, comparative effectiveness, public health) and a learning system.
7. Through a comprehensive education and communications campaign, promote a shared vision of a learning health system and the role of HIT in helping to create it.
 - Develop and implement educational material and tools to improve consumers' health and HIT literacy and to promote self management and self efficacy using HIT.
 - Communicate with professional societies and boards to identify opportunities for meaningful use activities to contribute to professional education programs.