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Health IT Investments that Improve Health Care: Critical Information Policy and Technology Attributes and Expectations

Federal policy makers are debating health information technology (health IT) investments as part of economic stimulus and broader health reform efforts.

Strategic health IT investments can improve health care, spur innovation and promote long-term economic growth by:

- Expanding employment in areas of health care that can produce quality and productivity improvements.
- Stimulating innovation in care delivery models.
- Achieving cost-effectiveness in delivery of care.
- Improving health outcomes.
- Enhancing consumer trust in use of information and greater consumer participation in health and health care.

To achieve the desired impact and value from health IT investments, funding efforts should incorporate:

- I. Information Policy and Technology Attributes that foster trust and enable sharing of vital health information**
- II. Expectations for measurable health and delivery system improvements**

I. Information Policy and Technology Attributes that Foster Trust and Enable Sharing of Vital Health Information

More than 100 of the major participants in health care – consumer organizations, health care providers and insurers, e-health companies, privacy experts and government health care agencies – have agreed on a critical basic set of Information Policy and Technology Attributes as a framework for health IT.¹ These Attributes allow for the movement of information in a private and secure manner so that it can be used to improve health care.

Investments in health IT and health information sharing efforts should be consistent with the following three **Information Policy and Technology Attributes**:

- (1) a set of **Core Privacy Principles**;
- (2) **Sound Network Design** principles; and
- (3) mechanisms for **Oversight and Accountability**.

(1) Core Privacy Principles

Meaningful safeguards for consumer privacy and data security will be achieved by using both policy and technology tools to achieve the core privacy principles based on U.S. Fair Information Practices.

1. **Openness and transparency:** Policies for information use and sharing are clearly communicated to participants.
2. **Purpose specification:** The purpose of the data collection effort is clearly specified and narrowly suited to the need.
3. **Collection limitation:** Only data needed for specified purposes are collected and shared.
4. **Use limitation:** Data are only used for the agreed upon and stated purposes.
5. **Individual participation and control:** Individuals can find out what data have been collected and who has access, exercise meaningful control over data sharing, have access to information about them, request corrections, and see audit logs.
6. **Data integrity and quality:** Mechanisms are in place to ensure that data are relevant, accurate, complete, and up-to-date.
7. **Security safeguards and controls:** Tools and mechanisms are in place for proper authentication and to secure against breaches, loss or unauthorized access.
8. **Accountability and oversight:** Mechanisms and accountable parties are established for monitoring compliance with the policies and procedures.
9. **Remedies:** Mechanisms for handling complaints and remedies for affected parties are established in the event of breach.

¹ Markle Foundation Connecting for Health Policy Brief:
http://www.connectingforhealth.org/resources/20080822_policy_brief.pdf.
 Markle Foundation Connecting for Health Common Framework:
<http://www.connectingforhealth.org/commonframework/docs/Overview.pdf>.

(2) Sound Network Design

Network design and technologies must deliver information to consumers and their providers privately and securely, when and where it is needed.

1. Enable interoperability, support a diversity of applications, use secure, open web standards.
2. Incorporate technical tools that facilitate trusted use: audit, access, authorization, authentication, and accuracy.
3. Promote technology choices, including distributed architecture and use of de-identified information, that limit the potential for abuse and reduce risks of large breaches.
4. Support and encourage networked approaches that make information accessible to consumers and their providers, including through the internet, mobile devices, etc.

(3) Oversight and Accountability

Deploy mechanisms to ensure the Core Privacy Principles and Sound Network Design are adopted and enforced:

1. Include those affected in the development of approaches and policies.
2. Ensure that the Attributes are adopted.
3. Include clear mechanisms of enforcement appropriate to the specific activity, such as through contractual agreements or regulatory mechanisms.
4. Designate responsibility for monitoring and oversight.

II. Expectations for Measurable Health and Delivery System Improvements

It is now widely understood that health IT on its own will not result in the desired outcomes of improved care delivery, health care quality and cost effectiveness. In other sectors, productivity gains were only possible when IT investments were combined with improvements in business practices. Digitizing existing stovepipes of information and poorly designed health delivery approaches will lead to neither quality nor productivity improvements, and fail to lay the groundwork for more substantial health care improvement. Some of the most visible and public IT failures – such as the IT modernization of the Internal Revenue Service (IRS) and the development of a Virtual Case File system at the Federal Bureau of Investigation (FBI) – have failed to provide the benefits promised in a cost-effective and efficient manner and in some cases have created privacy exposure.

Health IT investments must be designed to achieve measurable health outcome improvements. In fact, it may be possible to measure health improvements from deployment of health IT long before it is possible to measure productivity improvements in health care. And clear measurement of health improvements will build the case for further investment in health IT and help address privacy concerns.

Health IT investments will help us make progress toward our goals if we set explicit Expectations that link investments to health objectives. The Expectations focus on outcomes, not a specific technology approach. Adoption of electronic health records is certainly one path to the desired result, but other uses of information technology and options² might be equally or more viable, alone or in combination, to meet health outcome and delivery system goals.

Health IT investments should achieve the following **Expectations**:

1. Have clear, specific and achievable health improvement goals.³
2. Outline effective strategies for using technology and health IT to reach these goals.
3. Articulate how IT and non-IT investments will be combined to achieve objectives.⁴
4. Motivate widespread availability and use of key electronic information (medication history, lab and imaging results, after care summaries) by clinicians and patients to reach health goals.
5. Support rapid deployment and impact across entire communities.

Government's Oversight Role

Government has a critical role in assuring rigorous oversight and accountability against these Attributes and Expectations for any national health IT initiative. Appropriate agencies must be charged with developing the policies, rules, and procurement requirements to satisfy these Attributes, tailoring the specifics to the circumstances of the effort.

Within one year, and each year thereafter, appropriate agencies, including the Office of Management and Budget and the Department of Health and Human Services, should report to Congress on the adoption and use of the Information Policies and Technology Attributes and Expectations across all health IT programs, funding and activities. The report should:

1. Review the status of adoption of Information Policy and Technology Attributes and Expectations.
2. Identify and suggest strategies for overcoming barriers to adoption.
3. Discuss the resources and processes for training, adoption, oversight and accountability.
4. Propose any policy, regulatory or legislative changes needed to advance implementation.

² Other technology options and models might include: networked approaches relying on the internet, electronic messaging of existing digital information such as medications filled and laboratory results, simple tools to support information sharing across care transitions and to care teams, ongoing management of chronic conditions through remote monitoring and secure messaging with patients, increasing availability of high speed internet access to sites of care, etc.

³ Examples of health improvement goals might include: reducing hypertension, improving cardiac mortality, increasing chronic medication adherence, reducing hospital readmissions, reducing medical errors.

⁴ Examples of non-IT investments might include: training, implementation support, care delivery redesign, chronic care management, and patient engagement.