



HEALTH INFORMATION AND COMMUNICATION INVESTMENT RECOMMENDATIONS

Healthcare reform is a front and center goal of the Obama administration and the 111th Congress. There is broad consensus that investing in health information and communication technology (HICT) can enable improvements in the coordination, safety, cost and quality of healthcare services and public health.

Important progress has been made over the past several years because of private sector investment, targeted federal grants and contracts and policy leadership. Still, the rate of adoption and interoperability of electronic health records is not yet on pace to achieve the President's goal of electronic health records for all Americans by 2014. Adoption by smaller medical practices, rural health and other organizations has been particularly challenging due to cost, impact on the work flow and work force, and lack of incentives.

Health IT as an element of the economic stimulus and sustained federal investment is compelling. This is infrastructure in the truest sense. The US lags behind many other developed countries in health IT adoption because of differences in payment and incentives but also because other nations have made this a national priority and have invested accordingly. Private investment in health IT is already showing signs of slowing in the current credit crunch and pressure on operating budgets is causing healthcare providers to suspend or scale back projects.

Hence, this is an important time for federal leadership and intelligent investment in HICT. The leadership of the American Health Information Management Association (AHIMA) believes that in addition to providing targeted funds or loans to help struggling providers make the investment, there are four areas of infrastructure investment that must be planned for:

- Build national and state governance and leadership for HICT
- Invest in a nationwide health information interoperability framework
- Invest in the healthcare information workforce
- Invest in results – evaluating and measuring results

Build National and State Governance and Leadership for HICT

Sound and effective national and state governance and leadership is essential to ensure that HICT investments produce short and long term benefits. An interoperable system will require ongoing governance and leadership at the national and state levels. Governance and leadership is needed to:

- Safeguard the confidentiality, privacy and security of health information and its proper use
- Achieve interoperability through adoption, use, and conformance to standards

- Ensure coordination between HICT initiatives and all other aspects of health and payment reform, and
- Produce incremental improvements, quantify progress and build on successes.

National governance must include the federal government and the private sector. It must be agile, not subject to undue political influence or the discontinuity of the appointment processes. Similarly, state efforts must include public and private interests that effectively bridge initiatives within communities and those in other states and at the national levels.

1. National Governance and Leadership

The Office of the National Coordinator for Health IT (ONC) was established through executive order in 2004, but its authority as an agency of the federal government has not been codified in any legislation. The American Health Information Community (AHIC) became a focus for national efforts in 2006-2008 and was a rallying point for identifying and spotlighting solutions. While the AHIC included representatives of the private sector, there was limited opportunity for private sector input and most importantly, the recommendations were advisory to the Secretary. The Community itself had no authority to see that they were implemented.

To advance HICT as part of healthcare reform, AHIMA recommends:

- Appointment of a national public-private governance entity with authority to set priorities and direction for advancing the HICT infrastructure in the US through standards, policies and other programs to advance interoperability. Its charge should explicitly include responsibility for coordination of national and state HICT efforts and coordination with federal government/healthcare industry efforts. To advance progress on HICT, this entity should be charged with:
 - Identifying and recommending areas or standards where federal government action is needed to reach a milestone or coordinate with existing federal HICT programs such as HIPAA administrative simplification.
 - Coordinating standards harmonization and conformance testing with HITSP, CCHIT and other public or private entities that advance aspects of its mission.
- Identifying new programs needed to advance change and to serve the public good such as those for accreditation of health information exchange entities (HIEs).
- The Office of the National Coordinator for Health IT, as the senior government coordinating agency, should be codified and funded. The ONC and the National Coordinator should be charged with not only providing dynamic leadership for the federal and national HICT efforts, but also with overseeing the implementation and conformance to or compliance with standards and guidelines adopted by the HICT public-private entity.
- A new separate public-private entity is needed to coordinate the development, implementation and maintenance of healthcare terminologies and classification. This critical dimension of

interoperability is highly fragmented and no entity has authority to develop and maintain terminologies and classifications in a way that is required in a digital healthcare system.¹

2. State Governance and Leadership

There is growing consensus that public-private governance health information exchange (HIE) entities are needed in each state.^{2 3} As with the national public-private governance entity, state-level HIE entities sit between government and the healthcare sector to facilitate data sharing to achieve the public good. These entities operate to:

- Bring together providers, payers, and patients operating under a common health care governance and policy framework;
- Harmonize state confidentiality, privacy and security laws with federal standards and test new methodologies for protecting health information. Align actions among public and private health care sectors;
- Coordinate information exchange, quality improvement, public health and other programs that rely on accurate information; and
- Ensure participation of Medicaid and SCHIP recipients and safety net providers in infrastructure programs.

In larger states, information exchange may occur in communities, but there must be sufficient uniformity in policy, standards and technology to ensure that they can be connected across the state and that states can be connected to the national infrastructure.

Approximately 17-21 states are now ready for large-scale implementation. Federal support could enable others to advance their planning efforts and would ensure that state efforts are aligned with national efforts. AHIMA recommends funding for:

- Infrastructure planning for states not yet ready to implement qualified statewide programs, and
- Implementation funds for states or state-designated entities that are ready to begin implementing qualified statewide infrastructure programs

Federal oversight would ensure that funds are spent in a manner consistent with emerging federal and state health information policies and standards.

¹ See American Medical Informatics Association (AMIA) and AHIMA white paper "Healthcare Terminologies and Classifications: An Action Agenda for the United States" at http://www.ahima.org/emerging_issues/ClinicalTerminologiesVocabularies.asp and summary recommendations "Healthcare Terminologies and Classifications: Essential Keys to Interoperability" at <http://www.ahima.org/infocenter/whitepapers>

² AHIMA Foundation, "State Level Health Information Exchange: Roles in Ensuring Governance and Advancing Interoperability," March 2008, <http://www.staterhio.org>

³ AHIMA Foundation, "State Level HIE Value and Sustainability: Approaches for Financing and Bringing Interoperable HIE to Scale," November 2008, <http://www.staterhio.org>.

Invest in a Nationwide Health Information Interoperability Framework

When first envisioned in 2001⁴ a national health information infrastructure was seen as enabling health information exchange among the healthcare provider, personal health, and population health “dimensions.” Since that time significant work has been done to design, test and demonstrate the feasibility of models for interoperability to support important uses. The ability to exchange information has been demonstrated, critical standards have been developed and embedded in technology, and progress has been made in understanding the requirements and the current discontinuity of policy. Still, the framework and the infrastructure for nationwide interoperability are not yet fully designed nor its structure fully architected. What has been learned is that in addition to governance, interoperability has three inextricable threads:

- Technology –network, hardware and software solutions to exchange information between and among technologies;
- Standards - to determine how and what information is exchanged and how it is protected in that exchange; and
- Policy – the rules and guidance within which technology and standards must operate.

A fundamental requirement for interoperability is that the information is accurate in the first place and that this integrity is preserved as information is exchanged or aggregated. Information must be standardized so the originator and receivers interpret it consistently. It is also highly desirable that information be collected once and used for a variety of legitimate purposes including care delivery, quality improvement, public health, clinical and health services research and administrative functions including those covered under HIPAA. To ensure such information integrity and liquidity there needs to be further standardization of the data itself and an understanding that its value will improve over time with the application of science and appropriate oversight.

AHIMA urges investment in the following infrastructure without which the full benefit of electronic health records (EHRs) may not be realized:

- Development, adoption and maintenance of a roadmap for interoperability for the US covering technology, standards and policy. There must be a clear roadmap but one that values technology innovation and the advancement of standards and policy based on experience and changing needs.
- Design of streamlined and modernized approaches for more timely adoption of standards and their maintenance. For consistency and efficiency, this should include those under HIPAA, which otherwise are delinked, resulting in missed opportunities for administrative simplification.
- An infrastructure for development dissemination and maintenance of terminologies and classification standards in the US that is capable of serving the needs of a digital health system. In

⁴ National Committee on Vital and Health Statistics, “A Strategy for Building the National Health Information Infrastructure”, November, 2001, <http://ncvhs.hhs.gov>.

addition to the governance needs identified above, there is technology, policy and standards needed to advance the most fundamental building blocks of information exchange. Among the actions necessary we see that:

- It is crucial that the pending ICD-10-CM and ICD-10-PCS classification system be implemented with no further delay. Given the proposed compliance date of October 1, 2013, funding should be made available to healthcare organizations to defray the cost of industry-wide compliance. Funding should support training, conformance testing, Medicaid and Medicare compliance, and support for the HHS centers responsible for the support and maintenance of the classification systems. The US should take immediate steps to adopt (require) SNOMED-CT⁵ as the basic terminology for its EHR,⁵ and become actively engaged in the oversight and development of this terminology development in the International Health Terminology Standards Development Organization (IHTSDO).
 - The US must develop a public-private authority to oversee the development, maintenance, coordination, and harmonization among the 100 or so terminologies and classifications in the US. Without this function the ability to understand and effectively use data received from other systems or records will not occur.⁶ The Administration might consider consolidation of its existing T&C related agencies for better coordination and efficiencies. Funding is needed to first determine the structure and scope of the entity and then to establish the entity and its processes.
- Consistency and uniformity will permit lower administrative costs, encourage reporting, and ensure consistency, integrity, and comparability of collected data. Such a data steward organization could also coordinate and harmonize the confidentiality and security necessary for data reuse of secondary data.^{7 8}
 - The US must become more actively engaged in global collaborations related to standards for HICT, including terminologies and classifications. Many standards in use are or are becoming international, but US procrastination in the use of these standards and support for e-health has eroded its leadership.
 - Nationwide protections for confidentiality of personally identifiable health information must be uniform and rigorous no matter where health information is stored. Protections must address data access and use as well as authentication and other key issues. There must be uniform and stringent penalties for breaches and unauthorized uses.
 - Standards and uniformity provide the infrastructure, but to achieve maximum health this infrastructure must be extended to all Americans especially in underserved areas or where health disparities are

⁵ See AHIMA statement on SNOMED adoption: "Implementation of SNOMED-CT Needed to Facilitate Interoperable Exchange of Health Information" at <http://www.ahima.org/dc/positions>

⁶ See AMIA and AHIMA white paper "Healthcare Terminologies and Classifications: An Action Agenda for the United States" at http://www.ahima.org/emerging_issues/ClinicalTerminologiesVocabularies.asp and summary recommendations "Healthcare Terminologies and Classifications: Essential Keys to Interoperability" at <http://www.ahima.org/infocenter/whitepapers>

⁷ See AHIMA's "Statement on Data Stewardship" at <http://www.ahima.org/dc/positions>

⁸ See AMIA's paper "Toward a national framework for the secondary use of health data" <http://www.jamia.org/cgi/content/full/14/1/1>

great. This requires expansion and availability of the electronic support systems to all points within this country along with the hardware, software and training to make the package effective. AHIMA recommends the federal government further extend the electronic infrastructure so that all communities might have access to HIE and the resources necessary for every citizen to have access to an EHR.

- Inform the public about the importance of an advanced health information infrastructure to achieving the goals of health reform.

AHIMA agrees that funding from the federal government is needed to jump start the necessary changes. In the future a small levy on healthcare claims transactions may be able to provide the sustaining funding to cover operating costs for all participants including government funded healthcare.

Invest in the Healthcare Information Workforce

There are many points of vulnerability in the healthcare workforce generally which will need to be addressed in overall health reform efforts. These include well documented shortages in primary care physicians, nurses, pharmacists, and other patient care professionals. There is also a distinct set of workforce needs that must be addressed to advance the use of electronic health records and health information exchange. In fact, the investment in HICT is as much an investment in people as it is in hardware and software. AHIMA recommends special funding to address healthcare workforce issues directly related to building the HICT infrastructure which if not addressed have the potential to slow adoption and minimize its effective use.

The HICT workforce investments are of two types: 1) investment in health informatics and information management specialists who design, implement, and support EHRs and other technologies, and 2) investment in training patient care disciplines to use the technology to do their jobs.

1. Expanding the number of available informatics and information management specialists

In 2000, the Bureau of Labor Statistics forecasted the need for health information specialists that far outpaces the rate of new professionals coming into the field. Through its focus on workforce development, AHIMA has seen some increase, though not at the level that will support accelerated adoption of HICT and the goals set for EHR adoption and HIE. Clinical and health informatics and information management specialists include individuals with special education and training, generally through college and university programs. The workforce includes specialists trained at the doctoral, masters, baccalaureate, and associate degree levels who are competent to perform a broad range of critical functions from system design and management, privacy and security management, data analytics and specific application training and support. The number of academic programs has grown over the past decade, but the programs are small and do not serve all geographic parts of the country. The size limitations relate to faculty shortages and the shortage of clinical affiliation and internship programs to provide students and new graduates with useful work experience required for practice. Size of programs is also affected by the fact that the informatics and information management disciplines in healthcare are relatively unknown to college bound students and those seeking career change or job retraining.

Recognizing the workforce needs, the 110th Congress passed HR 1467 on June 6, 2007 which addressed many of the issues identified above. Unfortunately, no action was taken by the Senate. The legislation

would authorize grants to institutions of higher education for research into workforce, information management and informatics education program development. This legislation is a strong foundation on which to build in investing in the informatics and information management workforce. However, it was developed at a time where HICT was not viewed as part of an economic stimulus. Thus, AHIMA recommends the following stimulus actions:

- Adopt language similar to HR 1467 as part of the economic stimulus package and adjust the level of funding to reflect the health information workforce development challenges of the administration's call for full EHR adoption within 5 years.
- Through the Department of Labor, create health information workforce development grants to be administered through state workforce development programs. Such grants should make provisions for expanding the capacity (faculty and students) of existing accredited academic programs in health information disciplines and for establishing programs in geographically underserved areas. The funds should also support scholarships and loans for students in programs at all levels of clinical and health informatics and information management training from the associate degree to post baccalaureate and post graduate certificate levels.
- Provide grants to establish technical assistance teams to support implementation and use of HICT at qualifying healthcare provider organizations that cannot recruit or support qualified personnel on staff. The grantee may be a college or university, a health information exchange organization, an area health education center or other not for profit entity that can demonstrate its ability to mobilize, train and monitor a qualified health information specialist staff and provide a cost effective service similar to programs that have been established in other industries.
- Fund program evaluation grants so that workforce development programs are effectively evaluated and improved over time.

2. Training patient care workers to use EHRs and other information and communications technologies in their jobs

HICT impacts the work of all patient care disciplines and the current approach to training is a vendor and organization-specific approach. There are core competencies⁹ that can be defined and taught through discipline specific academic and continuing education programs and through cost effective distance and in-service education programs. Accelerating adoption and doing so more cost effectively requires mobilizing the industry to:

- Fund an industry-wide conference in 2009 to be a call to action for all health disciplines to work collaboratively to develop the HICT core competency of all healthcare workers.

⁹ AHIMA and AMIA paper, "Health Information Management and Informatics Core Competencies for Individuals Working with Electronic Health Records", October 2008. <http://www.ahima.org/infocenter/whitepapers>

- Fund development of “train the trainer” distance education and build a train the trainer program to deploy training through healthcare organizations, colleges and universities, professional associations and other qualified entities who can demonstrate ability to offer adult education services.
- Fund development of training programs adapted for the needs populations where English is a second language and special populations and health disparities.
- Fund program evaluation grants so that the training programs are effectively evaluated and improved over time.

Invest in Results – Evaluating and Measuring Results

The benefits of effective use of HICT can be expected to evolve and improve with experience. To realize return on the investment of stimulus funds on HICT, AHIMA urges that investments be tied to results and that there be a major investment in robust research and evaluation and knowledge sharing from the outset. Rigorous program evaluation and on-going research should be funded and begin as soon as possible in at least the following areas:

- Best practices for implementing and using EHRs in the care process;
- Best practices for consumer access and use of health information;
- HICT design and engineering to advance capabilities to derive clinical care and non clinical benefits;
- The accuracy and integrity of healthcare data and documentation;
- Effectiveness of governance and accountability mechanism;
- Benefits to consumers and consumer acceptance and engagement;
- Effectiveness of programs such as pay for performance and other incentive programs for adoption; and
- Policy, technology, and best practices to protect the confidentiality and security of personally identifiable healthcare data in a national network.

Program evaluation and research in these areas will speed learning and should speed implementation because trial and error approaches will be replaced with evidence-based approaches. There must also be investment in mechanisms to rapidly deploy learning.

AHIMA also recommends the development of national metrics to measure advancement and achievement of milestones relating to implementation of HICT and the building a national information network. Metrics should include consumer engagement and evidence of improvements in privacy and security practices.

The American Health Information Management Association (AHIMA) is the premier association of health information management (HIM) professionals. AHIMA's over 53,000 members are dedicated to the effective management of personal health information needed to deliver quality health care to the public. Founded in 1928 to improve the quality of medical records, AHIMA is committed to advancing the HIM profession in an increasingly electronic and global environment through leadership in advocacy, education, certification, and lifelong learning.

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