

A Crucial Step for Health Information Technology (HIT)

A Comprehensive, Accessible Federal Health Record

Electronic health records (EHRs) hold great promise, but scant progress has been made in their adoption. The American Recovery and Reinvestment Bill of 2009 recognizes the importance of HIT, and it contains carefully targeted priority investments focused on lowering healthcare cost by billions of dollars yearly, but also to save lives by updating and computerizing our healthcare system by cutting red tape and reducing medical mistakes. However, these funds are largely focused toward incentives for site-specific solutions, adding to the cacophony of already stove-piped data sets. The Federal Government is no different with multiple, stand alone electronic clinical and claims data. The aggregation of all of this data on any one American can be considered to be a citizen's Federal Health Record. At the current time, no American has ready access to the breadth of health data held by the Federal Government.

The President can take a major step towards achieving his healthcare goals by directing that the Secretary, Health and Human Services, bring all Federal Agencies together to provide a single, comprehensive, actionable, and secure Federal Health Record (FHR) to the American people, and do so within the next two years.

Execution

Delivering a comprehensive FHR through an electronic gateway to every American and his/her healthcare provider within two years is achievable. The project would be completely within the control of the Executive Branch. Crafting the FHR will demonstrate the agility and the ability of the Administration to quickly marshal resources and overcome internal institutional barriers to information exchange. Focusing only on the Federal data will allow the Administration to quickly field this gateway solution

The creation of a single FHR and its gateway will require work in the following areas. Most of these can be pursued in parallel with a single systems integrator developing the portal and gateway.

1. Completion of standards in the storage and exchange of clinical and claims data.
2. Full fielding of gateways between and inside Federal Agencies holding this data, leveraging the ground-breaking work in Nationwide Health Information Network (NHIN) and the Bidirectional Health Information Exchange (BHIE) between the

DoD's AHLTA and the VA's VISTA EHRs.

3. Creation of a comprehensive, robust master identity index.
4. Determining the content and presentation of a FHR, including data use agreements between agencies holding this data.
5. Providing a safe and secure portal to the FHR for all Americans with assurance that each American can only view their records.
6. Fielding a gateway to the FHR so that its data can be used to populate local health information exchanges (HIEs), EHRs, and Personal Health Records (PHRs).
7. This system will have to be continually guarded and improved.

This work can leverage existing work. Examples include the ongoing DoD-VA work on its Bidirectional Health Information Exchange, the work of the Healthcare Information Technology Standards Panel (HITSP), gateway and software data kit work in the NHIN-Connect effort, and sound commercial capabilities. There is also important, franchised data sharing capabilities that exist already in the Federal Government (e.g., in Intelligence and law

enforcement activities). Importantly, there is the work already done with the US Postal Service as the sole federal arm able to issue secure digital identity credentials, so that individuals can readily access their FHRs, as evidence of their “in-person proofing” of their identity. These credentials (similar to CAC cards used by the military) will immediately find other commercial uses that will benefit the overall economy. Finally, a crucial element would be the further development and leveraging of recent advances in natural language processing to allow for the extraction of appropriate data from free text, so that it can be used for computer-aided tracking and decision support.

Benefits on the creation of an accessible Federal Health Record

1. Catalyze the adoption of EHRs. The FHR would greatly accelerate the demand for and use of linked EHRs. With this capability, providers can have access to a comprehensive record of care to reduce errors, increase understanding, make better judgments, and improve care. Patients will become more knowledgeable of their health conditions and more proactive in managing their care through visibility into their personal health care related data. With patient permissions and oversight, patients will have better “control” over their health status. This new transparency to previously documented health related information can inform the plethora of commercially available patient health records (PHRs) which not only display clinical information, but provide decision support to patients. Comprehensive, connected EHRs would provide measurable and computable data to improve outcome- and evidence-based healthcare delivery for all Americans, including the information needed to signal preventive interventions to patients and their providers. For our wounded warriors and veterans, this would provide increased access to information for them and their providers in the civilian health-

care sector, linking, finally, all of their health-care in a single, integrated record for use across the VA, DoD, and civilian sectors. Finally, patient will have access to pricing, utilization, and quality measures that will better inform their own decision-making in their treatment and choice of providers.

2. Achieve cost savings. The rapid creation of the single FHR and its gateway to all American will spur not only the widespread adoption of EHRs, but also their connectivity. Cost savings can be realized through identification and elimination of duplicative and unnecessary tests, avoidance of contra-indicated therapies (including drugs), and efficiencies gained through real-time access to patient information. A study by the Rand Corporation found that if most hospitals and doctors offices adopted electronic health records, up to \$77 billion of savings would be realized each year through just such improvements. In addition, within the Federal Government there will be the avoidance of the duplicative costs associated with independent, stove-piped federal health agencies efforts trying to build non-interoperable systems.

3. Bolster the economy by creating new jobs.

The individuals with the necessary skills are not readily available in the required numbers today to meet the growing requirements of the expanding health information technology (HIT) initiatives. Earlier this year, Representative David Wu’s (D-OR) “10,000 trained by 2010” workforce legislation was reintroduced into the House. Congressman Wu calls for \$100 million to be spent on training Americans to enter the health IT profession. The Congressman intends for the legislation to create jobs for those who have lost them in other IT industries and to serve as a long-term investment to ensure a highly skilled and capable health IT workforce in the future. The steps required for the creation of an FHR and its gateway do not all have to be done in the

greater D.C. area. Many of these new jobs can be placed in economically-challenged communities across the United States, further stimulating the economy and bringing new jobs to under-developed regions.

4. Position the infrastructure underlying the FHR to become the de facto IT backbone for the National Health Information Exchange Network (NHIN). Because incentivizing widespread adoption of EHRs will take time to take effect, prompt availability of a comprehensive multi-agency FHR in a short time would speed the adoption and sharing of electronic health records across the nation. By combining information already held by the DoD, VA, HHS, SSA, and other Agencies into a FHR will yield the above savings to over 50 million citizens. Think of this as the federal foundation to a national HIE, setting up the basis for sharing among private entities by solving the major problems with the Federal data set.

5. Resolve policy and standards issues in the electronic exchange of health information. Focusing only on the Federal Health Record (instead of State and commercial) data will allow the Administration to quickly field a gateway solution, leveraging the ongoing work of DoD-VA, the SSA, and the HHS's NHIN. The Office of the National Coordinator for Health IT has been leading the charge for years, but has been complicated by the plethora of commercial, and state and local government issues.

6. Solve the assured identity issue to ensure that those accessing the system see only their electronic records. Northrop Grumman has dealt with secured intelligence and patient sensitive data so well for so long, we fully understand the privacy and access issues involved with exchanging personally identifiable health information. The FHR initiative represents a crucial first "Privacy and Access" step for those entities just getting exposed to

the risks involved with data handling. The Gateway must be able to issue secure digital identity credentials, so that individuals can readily access their FHRs. This will immediately find other commercial uses that will benefit the overall economy. Novel approaches to master patient indexes, biometrics, and assured identity can be leveraged.

7. Improved linkages between claims data held by Medicare and Medicaid and clinical information held by providers. Recent legislation mandates information exchange standards for federal agencies including Centers for Medicare and Medicaid Services (CMS). In addition, there is great interest in the utilization of clinical information to inform claims in the Medicaid system administered by States (but heavily funded by CMS). Both Medicaid and Medicare would benefit by the widespread deployment of the EHRs and their associated HIEs in order to better assess both outcomes and quality of the delivered care and also the ability to structure payment plans based on clinical performance as judged by the concordance of EHRs and claims information.

Conclusion

The FHR creates a virtual touchstone where all Americans could go to get their clinical and claims data from the VA, DoD, HHS, and other sources. Solving the challenges of creating the FHR results in reusable technical solutions for assured identity, privacy, data standards, exchange, and, most importantly, making visible and usable the personal data held by stove-piped data systems. The creation of a comprehensive FHR and its availability to every citizen is completely within the control of the Federal Government. It requires only the establishment of the vision and goal, the creation of a timeline, and adequate funding.