The Obama EHR Experiment

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Introduction

This story begins in the pre-election rhetoric of 2007 and 2008 when United States presidential candidate Barak Obama claimed that he could save \$80 billion dollars by automating the healthcare medical record system. This bold statement was based on a report from the Rand Corporation that supported this supposition. His call for a universal healthcare health information technology (HIT) revolution was sold to the voters who subsequently elected him to office. In 2009, his bold experiment was introduced into the healthcare delivery system: HITECH 2009. This was part of the 2009 stimulus bill passed by Congress without discussion or debate. In this \$787 billion dollar appropriation was \$18 billion dollars for physicians who are “meaningful users” of EHR (electronic health record) systems; \$2 billion for the national coordinator for infrastructure; \$1 billion for healthcenter renovation and IT systems; \$400 million for comparative effectiveness research; \$300 million for regional health information exchange and \$550 million for other things. The total cost for this grand experiment is \$22.250 billion dollars. Assuming a current US population of 308 million, that means we are spending \$72.00 per person for this social engineering experiment. (www.cms.gov EHR Fact Sheets) To complete his campaign promises, Obama added a complete overhaul of the healthcare delivery system in 2010 at a cost of over \$1 trillion dollars. Within 1 year we have made the largest investment in medical reorganization

in the history of the United States. Here is a simple question: “What are we as taxpayers and professionals getting for our money and will it work?”

The organization structure of the EHR project

The HITECH legislation of 2009 calls for an Office of the National Coordinator for Health Information Technology (ONCHIT) who is the key decision-maker for all EHR rules and standards. This healthcare “general” has two committees that feed him/her recommendations: The HIT (Health Information Technology) Policy Committee and the HIT Standards Committee.

Financial inducements

To entice physicians to “modernize” and get federal dollars, the doctors that are considered eligible professionals (EPs) are offered an enticement of \$44,000 to buy into this national initiative. It will take 5 years to get the full amount. The first year is only worth \$18,000.00 and then the amount drops to a yearly payment of \$12,000 and then \$8,000 and then \$4,000 and finally \$2,000. The \$44 thousand dollars is only possible if your system is operational and passes all the requirements in 2011 and 2012. If you start in 2013, your maximum is \$39 thousand dollars and in 2014 your maximum is \$24 thousand dollars and in 2015 you will get nothing. (www.hitechanswers.net/about) To the average physician, this seems like free money that should easily cover the costs of installing a new EMR system. Think again. Before you can collect one dime your system will need to pass all the requirements of the ONCHIT gate-keeper.

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What are the ONCHIT criteria for EHR acceptance and payment?

Here is the most current list as reported in the Federal Register in 2010 [1].

- A. Enable a user to electronically record, store, retrieve, and manage at a minimum, the following order types:
 1. Medications; 2. Laboratory; 3. Radiology/imaging; 4. Provider referrals.
- B. Implement drug-drug, drug-allergy, and drug-formulary checks.
 1. Automatically and electronically generate and indicate (*e.g.*, pop-up message or sound) in real-time, alerts at the point of care for drug-drug and drug-allergy contraindications based on medication list, medication allergy list, age, and CPOE (computerized provider order entry).
 2. Enable a user to electronically check if drugs are in a formulary or preferred drug list in accordance with the standard specified in Table 2A row 2.
 3. Provide certain users with administrator rights to deactivate, modify, and add rules for drug-drug and drug-allergy checking.
 4. Automatically and electronically track, record, and generate reports on the number of alerts responded to by a user.
- C. Maintain an up-to-date problem list of current and active diagnoses based on ICD–9–CM or SNOMED CT. Enable a user to electronically record, modify, and retrieve a patient's problem list for longitudinal care (*i.e.*, over multiple office visits) in accordance with the applicable standards specified in Table 2A row 1.
- D. Generate and transmit permissible prescriptions electronically (eRx). Enable a user to electronically transmit medication orders (prescriptions) for patients in accordance with the standards specified in Table 2A row 3.
- E. Maintain active medication list. Enable a user to electronically record, modify, and retrieve a patient's active medication list as well as medication history for longitudinal care (*i.e.*, over multiple office visits) in accordance with the applicable standard specified in Table 2A row 1.
- F. Maintain active medication allergy list. Enable a user to electronically record, modify, and retrieve a patient's active medication allergy list as well as medication allergy history for longitudinal care (*i.e.*, over multiple office visits).
- G. Record demographics. Enable a user to electronically record, modify, and retrieve patient demographic data including preferred language, insurance type, gender, race, ethnicity, and date of birth.
- H. Record and chart changes in vital signs: Height, Weight, Blood pressure, Calculate and display: BMI, Plot and display growth charts for children 2–20 years, including BMI.
 1. Enable a user to electronically record, modify, and retrieve a patient's vital signs including, at a minimum, the height, weight, blood pressure, temperature, and pulse.
 2. Automatically calculate and display body mass index (BMI) based on a patient's height and weight.
 3. Plot and electronically display, upon request, growth charts (height, weight, and BMI) for patients 2–20 years old.
- I. Record smoking status for patients 13 years old or older. Enable a user to electronically record, modify, and retrieve the smoking status of a patient to: current smoker, former smoker, or never smoked.
- J. Incorporate clinical lab-test results into EHR as structured data.
 1. Electronically receive clinical laboratory test results in a structured format and display such results in human readable format.
 2. Electronically display in human readable format any clinical laboratory tests that have been received with LOINC codes.
 3. Electronically display all the information for a test report specified at 42 CFR 493.1291(c)[1] through [7].
 - 6 4. Enable a user to electronically update a patient's record based upon received laboratory test results.
- K. Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, and outreach. Enable a user to electronically select, sort, retrieve, and output a list of patients and patients' clinical information, based on user-defined demographic data, medication list, and specific conditions.
- L. Report quality measures to CMS or the States.
 1. Calculate and electronically display quality measure results as specified by CMS or states.
 2. Enable a user to electronically submit calculated quality measures in accordance with the standard specified in Table 2A row 5.
- M. Send reminders to patients per patient preference for preventive/follow up care. Electronically generate, upon request, a patient reminder list for preventive or follow-up care according to patient preferences based on demographic data, specific conditions, and/or medication list.
- N. Implement 5 clinical decision support rules.
 1. Implement automated, electronic clinical decision support rules (in addition to drug-drug and drug-allergy contraindication checking) according to specialty or clinical priorities that use demographic data,

- specific patient diagnoses, conditions, diagnostic test results and/or patient medication list. 2. Automatically and electronically generate and indicate (*e.g.*, pop-up message or sound) in real-time, alerts and care suggestions based upon clinical decision support rules and evidence grade. 3. Automatically and electronically track, record, and generate reports on the number of alerts responded to by a user.
- O. Check insurance eligibility electronically from public and private payers. Enable a user to electronically record and display patients' insurance eligibility, and submit insurance eligibility queries to public or private payers and receive an eligibility response in accordance with the applicable standards specified in Table 2A row 4. Submit claims electronically to public and private payers. Enable a user to electronically submit claims to public or private payers in accordance with the applicable standards specified in Table 2A row 4.
 - P. Provide patients with an electronic copy of their health information upon request. Enable a user to create an electronic copy of a patient's clinical information, including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations, and procedures in: [1] Human readable format; and [2] accordance with the standards specified in Table 2A row 1 to provide to a patient on electronic media, or through some other electronic means.
 - Q. Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, allergies) within 96 hours of the information being available to the eligible professional. Enable a user to provide patients with online access to their clinical information, including, at a minimum, lab test results, problem list, medication list, medication allergy list, immunizations, and procedures.
 - R. Provide clinical summaries for patients for each office visit. 1. Enable a user to provide clinical summaries to patients (in paper or electronic form) for each office visit that include, at a minimum, diagnostic test results, medication list, medication allergy list, procedures, problem list, and immunizations. 2. If the clinical summary is provided electronically (*i.e.*, not printed), it must be provided in: [1] Human readable format; and [2] accordance with the standards specified in Table 2A row 1 to provide to a patient on electronic media, or through some other electronic means.
 - S. Capability to exchange key clinical information among providers of care and patient authorized entities electronically. Provide summary care record for each transition of care and referral. 1. Electronically receive a patient summary record, from other providers and organizations including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations, and procedures upon receipt of a patient summary record formatted in an alternative standard specified in Table 2A row 1, displaying it in human readable format. 2. Enable a user to electronically transmit a patient summary record to other providers and organizations including, at a minimum, diagnostic test results, problem list, medication list, medication allergy list, immunizations, and procedures in accordance with the standards specified in Table 2A row 1.
 - T. Perform medication reconciliation at relevant encounters and each transition of care. Electronically complete medication reconciliation of two or more medication lists (compare and merge) into a single medication list that can be electronically displayed in real-time.
 - U. Capability to submit electronic data to immunization registries and actual submission where required and accepted. Electronically record, retrieve, and transmit immunization information to immunization registries in accordance with the standards specified in Table 2A row 8 or in accordance with the applicable state-designated standard format.
 - V. Capability to provide electronic syndromic surveillance data to public health agencies and actual transmission according to applicable law and practice. Electronically record, retrieve, and transmit syndrome-based (*e.g.*, influenza like illness) public health surveillance information to public health agencies in accordance with the standards specified in Table 2A row 7.
 - W. Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities. 1. Assign a unique name and/or number for identifying and tracking user identity and establish controls that permit only authorized users to access electronic health information. 2. Permit authorized users (who are authorized for emergency situations) to access electronic health information during an emergency. 3. Terminate an electronic session after a predetermined time of inactivity. 4. Encrypt and decrypt electronic health information according to user-defined preferences (*e.g.*, backups, removable media, at log-on/off) in accordance with the standard specified in Table 2B row 1. 5. Encrypt and decrypt electronic health information when exchanged in accordance with the standard specified in Table 2B row 2. 6. Record actions (*e.g.*, deletion) related to electronic health information in accordance with the standard specified in Table 2B row 3 (*i.e.*, audit log), provide alerts based

on user-defined events, and electronically display and print all or a specified set of recorded information upon request or at a set period of time. 7. Verify that electronic health information has not been altered in transit and detect the alteration and deletion of electronic health information and audit logs in accordance with the standard specified in Table 2B row 4. 8. Verify that a person or entity seeking access to electronic health information is the one claimed and is authorized to access such information. 9. Verify that a person or entity seeking access to electronic health information across a network is the one claimed and is authorized to access such information in accordance with the standard specified in Table 2B row 5. 10. Record disclosures made for treatment, payment, and health care operations in accordance with the standard specified in Table 2B row 6.

Discussion

The HITECH legislation has been now scored by the CBO (Congressional Budget Office) and is estimated to cost \$34 billion, an increase of over \$12 billion beyond first expectations. The goals of the project are now being called unrealistic and unachievable by hospital experts. The individual payments are based on meeting all the criteria (A–W) we have listed above and not missing any marks. Pressure is building to modify this all-or nothing objective yet no final rules are issued as of this date.

Even Kaiser Permanente who has been in the EHR business for decades says they can't meet all these requirements and would not likely get paid. Others are saying that these criteria require too much change in too short a time. Intermountain Healthcare recently said they could not meet 36 of the 48 meaningful use criteria found in this legislation. The current rules require physicians meet 25 of the criteria and the hospitals need to meet 23 of the criteria to get any incentive payment from the government [2].

The criteria for inclusion in this big EHR lottery are reported to be large office based computer vendors who have outdated technology and huge office overheads. Companies like GE and Cerner and Allscripts have been in the business for years and require large office-based hardware platforms. The newer players who have Web-based systems are feeling the pinch and are complaining bitterly. At a recent meeting the CEO of Athenahealth complained to the national health information technology coordinator that he was being unfairly treated. The CEO made the comparison for giving funding for these old systems as a form of cash-for-clunkers. In response,

Dr. Blumenthal (ONCHIT director) implied that he was not interested in performance but wanted accountability of the process. What he was really saying was that this Trojan-horse giveaway program was needed to entice physicians into an electronic record where the government could control and monitor their efforts and manage costs by rationing care and services [3].

Physicians are responding to this healthcare overhaul by projecting increased volumes and more demand for uncompensated services. The time and costs of the EHR is not covered in the current compensation model. The level of staff and the technical expertise required to run these systems all add to the overall burden of medical costs. At present, no one wants to pay for these hidden expenses [4].

The political and social ramifications of this project are overwhelming. Let's put these issues aside for the moment and now look carefully at the individual pieces of this legislation and see what we can find. The first obvious fact is that this is a cash bribe to EPs to get into bed with the federally mandated system or stop all federal payments. The carrot is \$44,000 over 5 years. That is a small piece of the overall costs required to install an EHR in a physician's office. What the system does is require that all data be given to the feds for their data-mining. This means that many new players will be given access to your patient's medical data and there will be almost no way to control the use and abuse of this medical gold mine. Many are considering medical data as public information even though there are HIPPA regulations. These temporary protections which are being offered will not work, and the more people who have access to this data, the more abuse there will be of its use.

The privacy standards are impressive as seen in item W. above and will require expensive software programs to accomplish them. Even with all this protection, the use of the data is going to be in the hands of so many different groups that it will be almost impossible to control and secure. Most health informaticians are now willing to conclude that once the medical records go to the government there will be no controlling its access. In the past 5 years there has been more than 45 million records hacked or stolen from hospital and government agencies. The system is too large and complex to control, and there are too many who could benefit from getting access to this data. Patient privacy is only controllable at a local level, but when it passes into the government bureaucracy there is no way to limit its abuse and misapplication [5].

It is interesting to look at the role of the doctor in this "brave new world". If you look down the list of features that are considered worthy of financial reward (23 basic categories) you will note that only one criterion deals with clinical decision support. The rest of the items are secondary to the doctor and feed the patient and govern-

ment data that is needed for cost controls and physician monitoring. What they are doing is promoting the automation of a paper medical record where the doctor fills in all the blanks and becomes the clerical front-end of this electronic surveillance system called the EHR. You will note that there are no rewards given for creative designs that assist the physician in data entry or expedite his ability to see and process data. There are no initiatives to foster new formats for the patient-physician interface and to improve communications and efficiency. What is being supported is the automation of a blank form with the physician and his office being tasked with the job of data entry clerks. Notice the use of the term CPOE (Computerized Provider Order Entry) in the requirements which literally means: physician order entry clerk. There are no incentives for rapid payment of claims, and there is no mention of timely deposits into the physician's bank. What the government wants is control of the system and the doctor with no strings attached.

When you look further at the EHR criteria, you will see that the majority of the criteria deal with billing, data transfer and data mining capabilities. The real goal of this EHR project is not to control costs or enhance patient care: it is data mining, the control of the physician population, and the ultimate rationing and control of patient services. This is more obvious when you look at the attached tables used for the criteria in Federal Register pages 2033–2035. Here are the defined rules for data transfer and the codes that the government will use to control the user and the provider. The use of interoperable standards means that they are looking for a massive database on which they can control the health-care delivery system. What they don't understand is that the existing EMRs in the field that have CCHIT certification do not turn out compatible reports for the same patient with the same disease. The problem arises in the fact that these certified systems are designed differently and have the ability to insert comments and formats that are not what a physician would desire or say. The computer generated progress notes are not often useful, and there is a serious problem with internal consistency and validity. In addition these systems are trained to up-code the chart to receive maximum payment. All these actions occur at the click of a mouse. These are frequently reported complaints and have been well documented in literature [6].

When you collect poorly controlled data with no validation process, you will get useless and dangerous outputs that could be very misleading. If this is the central goal of this effort, it is not worth the \$22 billion being invested.

By definition, anything the government does will not save money. There are no cost-savings in this process since the infrastructure will continue to grow just like the IRS

and other government agencies [7]. In a recent large scale study of hospitals by Harvard Medical School, it was shown that increased computer usage did not make a significant difference in hospital performance, but it did increase both the administrative and overall costs for the hospital [8]. This is a stunning report that makes the Rand report obsolete and fictitious. There is no pot of gold in this automation process, and the real objective is government controlled centrally managed healthcare at all levels.

In the creation of this new government agency, ONCHIT, we continue to get daily updates on how they plan to manhandle all these existing systems and force them through their new certification process. Their first initial answer to the lack of compliance is to set up a temporary certification. The rules for this are just being released. Groups can apply for being Authorized Testing and Certification Bodies (ATCB). The final rules for certification are not to be seen till later this year [9].

All this rhetoric is being caused by a lack of confidence in the capabilities of any commercial or private system to meet the criteria published in the Federal Register. A recent meeting in Washington of HIMSS (Health Information and Management Systems Society) on June 14–18, 2010, was marked by a serious challenge to the ONCHIT requirements list. They are asking Congress to pass additional legislation changing the “meaningful use” criteria to something compatible with current industry products and services [10]. If existing vendors are required to make major changes to their systems this could bankrupt many smaller companies and cause a serious increase in price from others. Where is this investment capital going to come from and who could trust the government to not change the rules and further increase costs?

Conclusions

This bold experiment in medical informatics is based upon a false supposition (The Rand Report) and a total lack of prototypes on which to build. There is no off-the-shelf EHR on the planet that could meet all the criteria listed in the ONCHIT legislation. The idea of designing complex systems by federal committees without physician input, prototype development and testing is insane.

Although the experiment has a noble and visionary goal, the centralization of all this power in the federal government and the control of the entire system by a few select committees which are chosen from the political and government bureaucracies guarantee failure. Look at Medicare, the US Post Office, Fannie and Freddie, Social Security, etc. These are all massive government run programs that are bankrupt and have poor to minimal service. This EHR project is just another attempt by the

President and Congress to move our entire economy into a socialized system with czars and unelected dictators in control. The control of healthcare is one of the key ingredients in controlling the people and keeping them on the government dole. The HIT academics have been duped into supporting this program that will ultimately bankrupt this nation and destroy any opportunity for the next generation. Their desire for training money and grant support has been used against them and will ultimately backfire.

This federal takeover of 20–30% of our entire economy is based on the premise that big government is better and the elite know more than the average citizen. When this new system and the 2010 healthcare bill takes hold, we will be forced to seriously cut costs. How do we do that? We will be told to ration care and how better to enforce that than through a federally controlled EHR. Look at Canada and England and you will see what is coming soon. Instead of supporting private practice we are going to destroy it and make this nation like other socialized/communist countries. This is a sad end to what has been a very productive and creative period of freedom.

When the people demand free services from the government as their right, they must give up their personal freedoms. That is the price of centralized government and the end result is very predictable. Our founding fathers knew all about centralized power and drafted a Constitution to give the States' rights to control their destiny. These safeguards have now been disregarded or removed, and we are now a rudderless ship with a financial storm approaching (national debt). With this centralized and absolute power comes a dictator, loss of all freedoms, and collapse. Socialism only works when you can get the rich and productive to pay the bills. When you destroy the rich and discourage the productive, the system fails and the nation falls. Under a socialized system there is no incentive to work or be creative and entrepreneurial. Everybody looks to the government for a handout and soon there is nothing to give which results in chaos. Take a good look at Greece and you can see our future.

The 2009 HITECH legislation is a Trojan horse that is being used to get doctor's paper charts removed. The end result will be an electronic big brother who reaches directly into the physician's office. Once the physician is on-line in the exam room, he will be told what to order and what to use for treatment. Right now this is being done at a slower and more limited pace by insurance companies. Soon it will be mandated from ONCHIT. The current battle over rules and criteria are just the visible part of this insidious program of government control. While the companies and doctors are battling selection criteria, ONCHIT is silently taking over every independent group and making them totally controlled by the central government group (CCHIT-Certification Commission for health Information Technology). When a magician works, he wants you to focus on the obvious and not see what is going on behind the scenes. This is the stealth part of this legislation: the government bureaucratic takeover of medical practice and all the healthcare providers. The private practice of medicine will soon be a thing of the past with this new tool in operation, and all the disease/diagnosis and treatment templates will be supplied from Washington. You are now seeing the medical template of the "New World Order".

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