



Statement

of the

American Medical Association

to the

**Committee on Health, Education, Labor &
Pensions
United States Senate**

**Re: America's Health IT Transformation:
Translating the Promise of Electronic Health
Records into Better Care**

March 5, 2015

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On behalf of our physician and medical student members, the American Medical Association (AMA) commends the Senate Committee on Health, Education, Labor & Pensions (HELP) for conducting this hearing to address "America's Health IT Transformation: Translating the Promise of Electronic Health Records into Better Care." As the largest professional association for physicians and the umbrella organization for state and specialty medical societies, the AMA is dedicated to supporting health care innovations and promoting new technologies. We thank the Committee for considering the role of Electronic Health Records (EHRs) in transforming our health care system and believe the following will help inform future efforts to leverage this technology to improve care.

Physicians are pioneers in harnessing health information technology (health IT) to improve patient care, quality, and efficiency. The challenge now is to achieve the promise of EHRs by promoting interoperability and ensuring that safe and usable technology is incorporated into the physician workflow in all practices, large and small, in both urban and rural areas.

The data is clear that physicians are making great strides in embracing EHRs. Prior to enactment of the Meaningful Use (MU) program, roughly 48 percent of office-based physicians had an EHR.¹ Today, approximately 78 percent of these physicians are now using some form of an EHR.² Yet, despite this broad adoption, EHRs have not yet been shown to improve practice efficiencies or greatly enhance the quality of care for patients.

In October 2013, the AMA and RAND Health released a study that identified factors that influence physician professional satisfaction across a variety of different physician practices and geographic regions.³ Despite having no initial focus on EHRs, one of the key findings of the study was that, while nearly all of the physicians interviewed saw the benefits of moving from paper to electronic records, EHRs also worsened professional satisfaction. Specifically, the study found that EHRs interfered with physician workflow due to poor usability, time-consuming data entry, and data lock-in.⁴ Beyond these significant usability concerns, there are other obstacles to interoperability and the advancement of EHRs, including technological barriers negatively affecting patient care, security and privacy issues, and costs, each of which are described in more detail below.

Technological Barriers

Physicians who have invested in EHRs are not seeing the promised benefits of these systems due to technological barriers that prevent the exchange and incorporation of data. Many physicians are still sharing patient information with each other via fax or mail despite having invested in a costly EHR system. According to a recent study conducted for the Agency for Healthcare Research and Quality (AHRQ), only about 20 percent of physicians studied in Michigan were sharing patient health data

¹ Office of the National Coordinator (ONC). Report to Congress. October 2014. Available at http://www.healthit.gov/sites/default/files/rtc_adoption_and_exchange9302014.pdf

² Id.

³ The RAND Corporation with Sponsorship by the American Medical Association. Factors Affecting Physician Professional Satisfaction and Their Implications for Patient Care, Health Systems, and Health Policy. October 2013. Available at http://www.rand.org/content/dam/rand/pubs/research_reports/RR400/RR439/RAND_RR439.pdf.

⁴ Id.

directly from their EHRs. This study also found that less than half of the providers were able to offer their patients electronic summaries of care, a requirement of the MU program. Even those who were capable of exchanging data faced barriers to interoperability because their colleagues had systems that could not exchange patient information.⁵

To address this problem in the short-term, the AMA urges taking initial steps to improve the underlying data captured within EHRs and other technologies, which requires a collective effort. A uniform understanding of clinical terms across groups of physicians will ensure consistent meaning when data is captured and consistent interpretation when data is exchanged and re-used. For example, when a patient complains of shortness of breath, quality information captured in the EHR does not distinguish between a patient who has difficulty breathing after he or she has walked a mile or one who is short of breath sitting in a chair. There is also the need for standard data formats for certain data types, such as numerical data elements. For example, patient age or date of birth can be entered and stored as 012915 or January 29, 2015. This level of variability makes it difficult to query and exchange data across multiple and disparate systems.

We recommend one set of standard textual definitions that have been vetted throughout the clinical community to facilitate uniform understanding and consistent interpretation of clinical terms. Common definitions should be developed through a physician-led organization that is a leader in quality improvement, outcomes, and performance measurement and conducted through a consensus process that includes all specialties and practitioners who understand the clinical context of the data elements based on the patients for whom care is provided.

⁵ Adler-Milstein and Julia Rose for AHRQ. Assessing Readiness, Achievement & Impact of Stage 3 Care Coordination Criteria. Available at <http://healthit.ahrq.gov/ahrq-funded-projects/evaluation-of-meaningful-use>

In addition, the electronic exchange of health information requires a consistent, reliable mechanism for matching patients to their records. Without a national patient matching strategy there are serious safety risks that could arise from attributing a medical record to the wrong individual. For individuals with common names, a cluster of demographic information may not be sufficient to distinguish between the John Smith who has no allergies and the John Smith who has a severe allergic reaction to penicillin.

Another major stumbling block to information exchange is the lack of provider directories. Just as telephone users can access the yellow pages and e-mail allows for saved contacts, directories allow physicians and patients to look up and send information to other care providers. Without easy ways to access this contact information, the exchange of data will simply not occur.

Finally, greater testing is needed to ensure certified EHRs are working when implemented. The AMA has received accounts where, despite passing certification, EHRs when deployed in hospital and physician practices incorrectly calculated measure thresholds, intermittently lost patient data as charts were being saved, and truncated office notes when sent to a printer. Physicians have also reported that their systems can be paralyzed by simple errors like alpha/numeric mismatches, text which exceeds character limits, or time of day entries that exceed 24 hours (e.g., 78:00). These problems may be attributed to the fact that EHRs when deployed in dynamic clinical settings do not always mirror the laboratory testing environment. Accordingly, we believe EHRs should be rigorously tested against a number of clinical scenarios, including abnormal ones that are indicative of real life workflows in both ambulatory and inpatient settings. Testing performed in controlled environments that do not account for real life anomalies can limit a product's and the end-user's ability to correctly navigate workflow.

Usability Concerns

The design and implementation of EHRs also pose significant barriers to improving quality and achieving interoperability. Existing systems do not align with the cognitive and workflow requirements of

physicians, especially for certain specialties and care settings. Commonly performed functions, such as ordering medications, now require multiple keystrokes and mouse clicks—turning a formerly quick physician action into a lengthy and cumbersome process often previously facilitated by support staff. Physicians are also suffering from “alert fatigue,” where EHRs send numerous, repetitive warnings that are typically unrelated to the quality of care for the patient.

Many physicians believed that the EHR certification process would ensure that these systems performed tasks in an efficient and safe manner. In reality, the certification process has focused solely on meeting the MU requirements, without focusing on principles of user-centered design, patient safety, and efficiency. The AMA has learned of alarming reports that EHRs have passed certification no matter how long it takes to perform a given function, even when the system fails and needs to be rebooted. We have also heard reports of vendor shopping, meaning if a product fails to certify at one of the EHR certification bodies, the vendors simply seek out another certification entity and are able to get their products into the market.

Recognizing these concerns, the AMA assembled a panel of health IT experts, from a diverse set of clinical backgrounds and care settings, to identify key usability challenges physicians face with their EHRs. Based on this insight, the AMA has established eight EHR usability priorities to be urgently addressed by health IT stakeholders:

- **Enhance Physicians’ Ability to Provide High-Quality Patient Care** - Effective communication and engagement between patients and physicians should be of central importance in EHR design. The EHR should fit seamlessly into the practice and not distract physicians from patients.
- **Support Team-Based Care** - EHR design and configuration must: (1) facilitate clinical staff to perform work as necessary and to the extent their licensure and privileges permit; and (2) allow physicians to dynamically allocate and delegate work to appropriate members of the care team as permitted by institutional policies.
- **Promote Care Coordination** - EHRs should have enhanced ability to automatically track referrals and consultations as well as ensure that the referring physician is able to follow the patient’s progress/activity throughout the continuum of care.

- **Offer Product Modularity and Configurability** - Modularity of technology will result in EHRs that offer flexibility to meet individual practice requirements. Application program interfaces (APIs) can be an important contributor to this modularity.
- **Reduce Cognitive Workload** - EHRs should support medical-decision making by providing concise, context sensitive and real-time data uncluttered by extraneous information. EHRs should manage information flow and adjust for context, environment, and user preferences.
- **Promote Data Liquidity** - EHRs should facilitate connected health care—interoperability across different venues such as hospitals, ambulatory care settings, laboratories, pharmacies, and post-acute and long-term care settings. This means not only being able to export data but also to properly incorporate external data from other systems into the longitudinal patient record. Data sharing and open architecture must address EHR data “lock in.”
- **Facilitate Digital and Mobile Patient Engagement** - Whether for health and wellness and/or the management of chronic illnesses, interoperability between a patient’s mobile technology and the EHR will be an asset.
- **Expedite User Input into Product Design and Post-Implementation Feedback** - An essential step to user centered design is incorporating end-user feedback into the design and improvement of a product. EHR technology should facilitate this feedback.

We recommend that Congress consider these characteristics when seeking to make changes to the certification of EHRs. Vendors should robustly incorporate these priorities as well as practicing clinician input to ensure EHRs present, move, and incorporate data in a manner that provides relevant information while eliminating clutter and ensuring patient safety. To that end, the AMA is working directly with the vendor community to ensure these priorities are incorporated as they develop new products, but legislative changes may be needed to the certification process itself to improve product development.

Security and Privacy

Adoption of EHRs and other health IT has greatly expanded the need for stronger security and privacy protections, as is demonstrated by many recent breaches of health information data. While previously physicians and other care givers controlled the release and exchange of patient data, this information is now stored, accessed, and transmitted through a variety of technology outside of the physician’s control,

including EHRs, patient portals, and mobile applications. Yet, not all of these new technologies have appropriate protections for patient health information.

As highlighted by the Office of the Inspector General in August 2014, EHR certification bodies fell short of ensuring adequate safeguards to protect patient data.⁶ The report found that some of the most common security issues, including password complexity, emergency access, or privilege changes, were simply not addressed in test procedures for EHRs. Based on these concerning findings, we urge Congress to pressure vendors and other health IT manufacturers to incorporate, test, and publicly report more robust privacy and security measures to ensure protection for patient data.

Guidance on how to comply with the Health Insurance Portability and Accountability Act (HIPAA) has also not kept pace with the rapidly changing health care environment. The Office for Civil Rights (OCR), inside the Department of Health and Human Services, enforces both the HIPAA privacy and security rules but has not updated information and guidelines pertaining to the security and privacy of EHRs and other innovative technology. In addition, the multiplicity of privacy rules from local, state, and federal governments, as well as other organizations makes compliance difficult and can interfere with the development of more innovative products. A streamlined set of privacy and security guidance is needed to facilitate the use of health IT and ensure access by health care providers to needed information at the point of care.

Lastly, treatment of sensitive information, such as mental health information or HIV status, is particularly challenging. Issues such as appropriate segregation of this data, when and how patients must provide consent for information to be shared, and how to identify that a treatment relationship exists before data is transmitted continue to stand as barriers to moving and exchanging information. We believe these issues

⁶ Office of the Inspector General. *The Office of the National Coordinator for Health Information Technology's Oversight of the Testing and Certification of Electronic Health Records*. August 2014. Available at <http://oig.hhs.gov/oas/reports/region6/61100063.pdf>

should be addressed by OCR as well as discussed with vendors so that sensitive information is not inadvertently transmitted.

Costs

While many factors can prevent interoperability, anecdotal evidence from our members and reports from other stakeholders cite cost as one of the most challenging barriers. We know of physicians who incurred significant fees, of upwards of tens of thousands dollars, to transfer data from one EHR product to another. Others stated that they were charged extra fees to set up portals or interfaces to facilitate data migration. Still others are reporting excessive upfront costs levied by their EHR vendor when trying to connect their EHRs to clinical registries. In these instances physicians must pay the quoted amount just to meet certain MU objectives and requirements. Overall, these costs are prohibiting data exchange and limiting the usefulness of interoperability for both physicians and patients.

Physicians who are seeking to purchase a new EHR and migrate their patient data also face significant cost barriers. These “switching costs” are in addition to the expenses incurred to purchase, train staff, and implement EHR systems. Altogether, these expenses may hinder competition and restrict physician choice in the EHR marketplace.

The Office of the National Coordinator of Health Information Technology (ONC) addressed the issue of price transparency in its 2014 EHR Certification Final Rule that required vendors to outline additional types of expenses, such as “one-time” or “ongoing,” that affect a product’s total cost of ownership.⁷ Yet, the regulation only requires clarity in the types of costs that need to be disclosed, not the actual dollar amounts, leaving broad discretion and uncertainty. Without further transparency, we believe these

⁷ Office of the National Coordinator for Health Information Technology. Certification and EHR Incentives. Available at <http://www.healthit.gov/policy-researchers-implementers/certification-and-ehr-incentives>.

problems will persist and will impede improvements in adopting and using this technology to coordinate care.

Constraints of the Meaningful Use Program

Finally, it is not possible to divorce the lack of an interoperable health care infrastructure from the prescriptive nature of the MU program. While the statute lists a discrete set of MU requirements—one of which is interoperability—the implementation of this program has resulted in a substantial expansion of the program, adding numerous and overly complex measures that have nothing to do with data exchange. Vendors must prioritize their development process to meet this unwieldy set of mandates in order to obtain certification. What this means is certified systems are created with the MU requirements as the first priority while physician client needs (and thus patient needs) are a distant second. The MU requirements lock-in certain technology that prevent future innovations and also create barriers to interoperability because they take away valuable time and resources that could be better spent addressing the key issue of interoperability, patient safety, and reducing costs. We strongly urge the Committee to consider that improving interoperability and usability of EHRs is tied to streamlining MU regulations for physicians, and that the most immediate action Congress can take to improve interoperability and usability of EHRs is to allow flexibility in the MU program requirements.

Conclusion

With concrete solutions we believe that EHRs and other technology will be able to improve care coordination and enhance communication across caregivers. The AMA appreciates the opportunity to provide our comments on EHRs and transforming our nation's health care system. We look forward to working with the Committee and Congress on this important health care issue.