VIEWPOINT

Essential Electronic Health Record Reforms for This Decade

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Few health care innovations have been more intrusive and ubiquitous than electronic health records (EHRs). Despite EHRs' distinct advantages, the structure of health care services in the US has made it difficult to exploit their most desirable features. Instead of supporting clinicians seeking to deliver care more effectively and efficiently, current EHR design and configurations attempt to manage clinicians and how they do their work. The deterioration in the patient-clinician relationship and increased clinician burden are often blamed on the EHR. Meanwhile, the financial and administrative requirements that are implemented via EHRs have been ignored.

Like tackling the problems of climate change, partisan-divided government, and global infectious disease prevention, reforming EHRs can be qualified as a "wicked problem," in the terminology of Mariana Mazzucato.[1] Only through a compelling plan designed to engage key stakeholders will reform succeed. It is in this spirit that we present a prescription for action.

The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009, supported, among other things, the adoption and meaningful use of health information technology.[2] Its implementation was successful in promoting the widespread adoption of EHRs. Additional relevant legislation followed, including the 21st Century Cures Act, which was supported by an overwhelming, bicameral, bipartisan majority.[3] This stirred further momentum to improve EHRs.[4]

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More recently, the National Academies of Sciences, Engineering, and Medicine identified EHRs as a contributing factor to clinician burnout.[5] In early 2020, the American College of Medical Informatics explored this issue. Soon thereafter, the American Medical Informatics Association, with seed funding from the National Library of Medicine, formed a group under the moniker of 25 × 5 to reduce clinician documentation burden by three-quarters during the next 5 years.[6]

A workshop in 2022 allied with the 25 × 5 initiative identified 6 major EHR issues:

- Persistent failures to achieve interoperability (owing in part to the absence of a unique personal identifier)
- An inadequate personal health digital infrastructure
- An inadequate public health digital infrastructure
- Inadequate attention to diversity, equity, and inclusion
- Weak privacy, endangering safety
- EHR design, configuration, and implementation issues

Based on those discussions and our professional observations, 4 issues emerged as most salient and 3 as most actionable. The continued lack of nationally used unique personal safety identifiers for health as originally mandated in the HIPAA (Health Insurance Portability and Accountability Act) in the mid-1990s presents a continuing threat to privacy, safety, cost reduction, and administrative errors while remaining the least likely to be corrected.[7]

Three more actionable course corrections for EHRs are needed in this decade. They include removal of all administrative and regulatory content from "clinical time" unless such content is the primary clinical issue, inclusion of patient-entered information in the EHR, and reinvention of the clinical note in consideration of the first 2 changes.

A relentless policy and a technical effort must lead to removal of all financial and administrative functions from direct patient-clinician interactions. The sole exception to this procedure should occur if administrative data are an immediate concern of the patient, such as from mistaken identity that affects care or payment. In such a circumstance, the issue should be considered a legitimate clinical concern and be documented.

Although it is difficult to separate payment models and other administrative requirements from clinical documentation, this is essential because they are currently associated with many of the frustrations that clinicians and patients face. All prior approval or authorization practices should be reviewed to determine whether they can move to an audit approach post hoc or be removed. If they are still required in some circumstances, streamlined methods must be developed.

How do we get there? The tactics should be multiple. The Centers for Medicare & Medicaid Services (CMS) should reform its requirements to remove all such intrusions into the clinical encounter. Metadata, audit trails, and log files associated with clinical encounters to document effort and intensity could supplant current repetitive "check the box" documentation. In a fashion similar to that of billing requirements, quality measurements should be derivative and should not create documentation burdens. Other third-party payers should and likely will follow CMS's lead. More broadly, health information technology developers must invest the time and resources to make such data accessible without placing any demands on clinician time.

Because patients are the most vested, patient-entered data must become a natural part of the record

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and be accessible for analysis. Despite the multiple challenges this change will present, meaningfully incorporating patient-derived data as part of the record deserves aggressive experimentation and ultimate mainstreaming as practical paths develop.

Including patient-entered data and removing administrative tasks from the clinician's work will only mitigate the currently diseased EHR. The clinical note should be prospective in focus (ie, it should speak to expected or desired results of recent clinical action[s] and may include some sense of expected timelines). All hard stops during the ordering process in hopes of added patient safety should be examined critically, so they may be either minimized or eliminated. Clinicians functioning as billers will need to "unlearn" unnecessary patterns of documentation, with less documentation being the norm rather than more. For a 2-year hiatus, EHR software should ban all cutting and pasting functions or other innovations such as "copy forward." Results from diagnostic tests should be limited to those requiring clinician interpretation or comment, not simple identification.

What will be the effect of these interventions? A major move in these directions will allow far greater creativity and innovation between clinicians and patients to transcend the traditional boundaries of what constitutes care. The focus of care can broaden to consider all the social determinants of health that may be relevant to a particular patient.

With regulatory-driven documentation requirements removed from patient care processes, additional desired efficiencies might flourish. For example, ambient voice recognition in combination with artificial intelligence may reestablish clinicians' assessment and plan to their former priority. Accurate medication and allergy lists could be reimagined by developing a cloud-based definitive list for a patient, curated and validated by pharmacists playing a much more active role in patient care, a role that they are capable of and trained for.

CMS already has statutory and regulatory authority to implement large-scale demonstration projects to test these changes. Where this is not the case, we call on the legislative branch to authorize proposals. If needed to overcome inertia, a government-mandated and -funded evaluation and report from the National Academy of Medicine deserve serious consideration.

Although addressing shortcomings in EHRs will not cure all that ails our current health care system, implementing these recommendations should positively affect patients and clinicians and move us toward the original vision of a patient-centered, technology-enhanced health care ecosystem that is designed to significantly improve outcomes at a lower cost, with more satisfied patients and clinicians.

ARTICLE INFORMATION

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