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Physician Burnout in the Electronic Health Record Era: Are We Ignoring the Real Cause?

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Physician burnout is reaching crisis proportions in the United States (1). Studies have noted a rising prevalence of emotional fatigue. One study suggested that more than half of physicians in some disciplines are burned out and that this proportion is increasing. The number of clinicians leaving the workforce represents a major concern to health care professionals and to the health of the nation. Many factors contribute, but the physician's interaction with electronic health records (EHRs) is especially important now that EHRs have been broadly adopted across the country.

Although EHRs have great potential to improve care, they may also have perverse effects. Some studies suggest that U.S. physicians now spend as much time on "desktop medicine" (interacting with the computer) as they do face to face with patients (2, 3). Providers must divide their attention between patients and the EHR, and many believe that this compromises patient–physician relationships (4). Although few physicians support reverting to paper, there is a growing sense within the medical community that the EHR is driving professional dissatisfaction and burnout.

Through our work supporting EHR optimization, we have helped to launch EHR software in health systems outside the United States. Among many others, the Royal Children's Hospital in Melbourne, Australia, and Jurong-Health in Singapore have recently adopted the same vendor software (Epic Systems) that we support in our own health systems. We noted a significantly different interpretation of the EHR abroad: Physicians were more likely to report satisfaction with its use and cite it as a tool that improved efficiency. We also found that clinical documentation differs from that in the United States. In other countries, it tends to be far briefer, containing only essential clinical information; it omits much of the compliance and reimbursement documentation that commonly bloats the American clinical note. In fact, across this same EHR, clinical notes in the United States are nearly 4 times longer on average than those in other countries (**Figure**).

Are U.S. documentation requirements the primary driver of the national dissatisfaction with EHRs? One recent study found that during an average clinical visit, U.S. physicians spent 44% of computer-facing time on documentation and only 24% on patient communication (5). Strategies to reduce physician data entry have grown rapidly; in a recent study, use of medical scribes significantly increased physician satisfaction (6). Most health care systems invest significant resources to optimize EHR workflows for physician efficiency and reflect priorities mandated through meaningful use (7). The highly trained U.S. physician, however, has become a data-entry clerk, required to document not only diagnoses, physician orders, and patient visit notes but also an increasing amount of low-value administrative data. To justify billing to such payers as the Centers for Medicare & Medicaid Services, physicians must specify diagnoses from long and confusing arrays of choices relating to each test or procedure and document a clinically irrelevant number of elements for the history of present illness, review of systems, and physical examination. Documentation requirements in the United States are a relic of fee-for-service and will make even less sense as we move to new payment mechanisms.

The movement toward a value-based payment system alone will not ameliorate the effect of documentation on physician workflow. Since the Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted, U.S. clinical notes have doubled in length (Epic Systems. Unpublished data.). Meaningful use incentives have unintentionally created requirements for substantial, low-value documentation (8). Administrative tasks could grow even further as value-based payments increasingly demand documentation of comorbid conditions, quality process metrics, and clinical outcomes. Although the Merit-based Incentive Payment System and other incentive programs are focused on moving the U.S. system from a fee-for-service toward a value-based model, they have their own documentation requirements, for which clinicians will likely bear a significant burden. Just as health systems scrambled to produce often meaningless administrative records to receive meaningful use incentives, value-based programs could similarly encumber clinicians. In fact, fee-for-service may not drive the bulk of documentation requirements—several countries in the international comparison use a fee-for-service model, and few are truly single-payer systems.

Many blame vendors for physician dissatisfaction with EHRs and the potentially associated increase in burnout. Indeed, the EHR vendors that benefited from the federal stimulus have disproportionately focused on developing robust financial and compliance features, perhaps at the price of usability. However, U.S. hospitals demanded these features in search of financial sustainability in a market with seemingly insatiable needs for documentation. Vendors will have many opportunities to improve their systems going forward, especially usability and the alignment of function with value (9). But given observations from international colleagues, we believe that the regulations around documentation and billing likely play a larger role. Simplifying these regulations would benefit the health care system and patients alike. Regulators could replace the current documentation requirements; under value-based care, providers will be incented to do less, and much of the coding associated with tests and procedures, for example, would be unnecessary. Such technologies as natural-language processing and voice rec-

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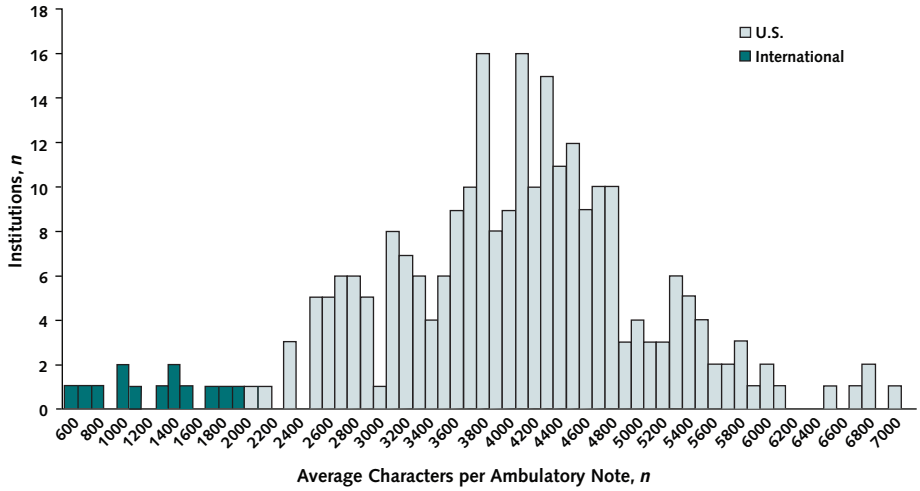
Figure. Average characters per ambulatory progress note in U.S. and international health systems.



Column height represents number of organizations. Dark columns represent 13 organizations outside the United States (140 000 notes from Canada, the United Kingdom, Australia, the Netherlands, Denmark, the United Arab Emirates, and Singapore). Light columns represent 254 organizations in the United States (10 million notes).

ognition can also help moderate the effect of current requirements. Health care organizations can dedicate resources to help clinicians minimize unnecessary documentation. A team-based approach that allows all members to operate at the highest level of their licenses will also be essential–for example, enabling medical assistants to complete more documentation and enter protocolized orders. Some even advocate for patients to contribute to their physicians' notes directly as a strategy to increase both clinician efficiency and patient engagement (10).

We believe that platform improvements are essential but will be insufficient to address a key cause of physician burnout: our outdated regulatory requirements. Value-based reimbursement programs hold the most promise for controlling spiraling costs, but they must avoid overburdening physicians with administrative responsibilities. Regulatory reform (including changes to billing requirements) allowing clinicians to strip documentation to bare essentials would improve accuracy, enable better use for research, and reduce the tedious work that occupies so much of our time. The nation's shift toward value-based care is welcome, but physician burnout is also a critical priority–we risk losing many physicians if the root causes are not addressed.

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