COMMENTARY

# Physician Satisfaction Should Be the Measure of Electronic Health Record Quality for the Nation

*Alex H. Krist, MD, MPH*

**(J Am Board Fam Med 2024;37:525–527.)**

***Keywords:*** **Cross-Sectional Studies, Documentation, Electronic Health Records, Family Medicine, Family Physicians, Information Technology, Medical Informatics, Physician Satisfaction**

In their brief report, "*Only One Quarter of Family Physicians Are Very Satisfied with their Electronic Health Records Platform*," Hendrix et al report on findings from the American Board of Family Medicine's (ABFM) annual recertification survey about electronic health record (EHR) satisfaction.[1] Between 2022 and 2023, 9932 family physicians who practiced direct patient care completed the survey. Survey completion is required as part of board certification, so there is a 100% response rate. The physicians were representative of family physicians nationally and reported using 1 of the 8 most popular EHRs. The authors found that only 26.2% of physicians were "very satisfied" with their EHR, with the "best" EHR only achieving a 35.0% "very satisfied" rate. More than a third of clinicians were "somewhat dissatisfied" or "very dissatisfied" with their EHR.

If EHR satisfaction were a health outcome, these findings would be completely and totally unacceptable. Imagine if only a quarter of a clinician's patients were very satisfied with the care they received and more than a third were dissatisfied. The clinician would be fired, go out of business, and maybe lose their license. In my health system, to be eligible for productivity bonuses, clinicians must have at least 85% of patients say that they would recommend the clinician to friends and family. Most practices in our Virginia Ambulatory Care Outcomes Research Network (524 practices belonging to every health system, distributed throughout the state, and representing all structures of primary care) have similar quality benchmarks.[2] And yet, even after decades of spending billions of dollars from federal incentives to promote the uptake of EHRs and create meaningful use,[3] state investment to create interoperable information exchanges, and practice and health system license fees for EHR use, we still have a system whose primary users—physicians—do not like it.

Recent reports from the National Academies of Sciences, Engineering, and Medicine (NASEM), *Implementing High Quality Primary Care* and *Achieving Whole Health for Veterans and the Nation*, have identified EHRs as an essential tool necessary for the health care system to carry out its basic functions, saying that "without high-functioning digital technologies, many of the aspirations of this report are not possible."[4,5] NASEM called for EHRs to align their functionality with the functions of primary care—to support relationships; to enable access and continuous contact over time; to foster collection and understanding each patient's story; and to have a person focus rather than a disease focus.[6]

By being essential infrastructure for day-to-day tasks, EHRs have assumed a central role in clinicians' daily lives. It is estimated that on average, clinicians spend 6 hours per day documenting care in the EHR, much of this occurs during a clinician's personal time.[7,8] Over a 30-year career, working 200 days per year, this represents 36,000 hours or

*From* the Department of Family Medicine and Population Health, Virginia Commonwealth University, Richmond VA (AHK).

*Funding:* Dr Krist's time and informatics work is supported by UM1TR004360.

*Conflict of interest*: None.

*Corresponding author:* Alex Krist, MD, MPH, One Capital Square, Room 631, 830 East Main Street, Richmond VA 23219 (E-mail: alexander.krist@vcuhealth.org).

See Related Article on Page 796.

4 years of a clinician's life spent using an EHR. It is not surprising that technology remains the leading cause of clinician burnout.[9] Conceptually, the job demands that contribute to clinician burnout relate to workload, time pressures, and work inefficiencies. EHRs have the potential to either contribute to or reduce clinician burnout. Both the design and the implementation will determine whether an EHR adds to or reduces workload.

I have always been an early adopter of technology. I am grateful that I no longer need to handwrite prescriptions for my patients and can access external information more easily, see automated alerts for overdue care, create registries for proactive population health, and share results and send simple messages to my patients. Yet these same advances come with unintended consequences and downsides. To use EHR functions requires learning the EHR's secrete language—which button to click and which pathway to follow. My EHR's and health system's solution is to provide training videos in the EHR that always pop up when I am trying to care for my patient, or a training session tacked on at the end of the day, or creating super user clinicians who can answer questions. While reasonable solutions, an intuitive user-centered design would make these workarounds unnecessary. This is exemplified by smartphones that require no training to fully use their functionality. In addition, patients increasingly expect instant access to their clinician through the portal. As much as I would like to provide this access, my practice does not have the resources to support this level of care, and my patients do not realize that their increased access means I am responding to them late at night rather than being with my family or caring for myself. Even billing compliance and insurance prior authorization entities, who are probably best served by EHRs, require more extensive and meaningless documentation to justify payment and authorization of care.

Artificial intelligence (AI) has been touted to make EHRs more functional by writing clinician's notes, automating identification of patient needs, helping make complex diagnoses, determining the best hierarchical condition categories (HCC) code to get high complexity care payments, and more. I see promise in AI, but these same promises were made about adopting EHRs in the 2000s. Ultimately whether AI reduces or adds to clinician burnout will depend on both its design and implementation. A critical caveat is that AI will only be as good as the data and EHR system it is built on. With inadequate and inaccurate data, clinicians may spend more time verifying that AI recommendations and notes are correct. AI may not fully account for patient preferences and values, undermining the trusted relationship between clinicians and patients, and driving more biomedical approaches to care rather than focusing on what matters most to people. AI may also interfere with workflow, making it hard to complete tasks or pay attention to patients during visits.

The NASEM committee on Implementing High Quality Primary care made 2 recommendations: (1) develop the next phase of digital health certification standards that support relationship-based, continuous, person-centered care; simplify user experience; ensure equitable access; and hold vendors accountable; and (2) adopt a comprehensive aggregate patient data system usable by any certified digital health tool.[4] Neither has happened. The committee also called for creating a scorecard to measure national progress on all domains of their recommendations (payment, access, workforce, and digital health).[4] The scorecard was to be built on existing data and measures that were collected nationally. Of concern, the committee could not identify any data for a scorecard measure about digital health.

Hendrix et al. have identified what should be our first national measure of digital health success – clinician satisfaction with EHRs.[1] If the EHR is foundational infrastructure to deliver care then clinician satisfaction with the EHR should be the outcome that matters. EHR success should be the same as we expect for care delivery—85% of clinicians should be very satisfied with their EHR. All specialty boards should ask the same question as part of licensure requirements to create a broad and inclusive longitudinal assessment and there should be consequences for EHRs that do not achieve benchmark goals. Future measures could capture a similar patient reported experience outcome.

A new roadmap to measure quality of EHRs is needed and clinician satisfaction is the perfect outcome to start measuring overall quality.

*To see this article online, please go to: http://jabfm.org/content/37/1/796.full.*

## References

1. Hendrix N, Phillips RL, Bazemore AW. Only one quarter of family physicians are very satisfied with

their electronic health records platform. J Am Board Fam Med. 2024; In Press.
2. Virginia Ambulatory Care Outcomes Research Network (ACORN). Virginia Commonwealth University. Accessed Sept, 2023. Available at: https://www.acornvirginia.org/.
3. Steinbrook R. Health care and the American Recovery and Reinvestment Act. N Engl J Med 2009;12:1057–60.
4. National Academies of Sciences Engineering and Medicine. Implementing high-quality primary care: rebuilding the foundation of health care. National Academies Press. Accessed May, 2021. Available at: https://www.nationalacademies.org/our-work/implementing-high-quality-primary-care.
5. National Academies of Sciences Engineering and Medicine. *Achieving Whole Health: A New Approach for Veterans and the Nation*. National Academies Press; 2023.
6. Krist AH, Phillips R, Leykum L, Olmedo B. Digital health needs for implementing high-quality primary care: recommendations from the National Academies of Sciences, Engineering, and Medicine. J Am Med Inform Assoc 2021; Nov 25;28(12): 2738–2742.
7. Arndt BG, Beasley JW, Watkinson MD, et al. Tethered to the EHR: primary care physician workload assessment using EHR event log data and time-motion observations. Ann Fam Med 2017;15:419–26.
8. Anderson J, Leubner J, Brown SR. EHR overtime: an analysis of time spent after hours by family physicians. Fam Med 2020;52:135–7.
9. National Academies of Sciences Engineering and Medicine. *Taking action against clinician burnout: a systems approach to professional well-being*. The National Academies Press; 2019.