

# Stress from using electronic health records is linked to physician burnout

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While electronic health records (EHRs) improve communication and access to patient data, researchers found that stress from using EHRs is associated with burnout, particularly for primary care doctors such as

pediatricians, family medicine physicians and general internists.

Common causes of EHR-related [stress](#) include too little time for documentation, time spent at home managing records and EHR user interfaces that are not intuitive to the physicians who use them.

"You don't want your doctor to be burned out or frustrated by the technology that stands between you and them," said Dr. Rebekah Gardner, an associate professor of medicine at Brown University's Warren Alpert Medical School. "In this paper, we show that EHR stress is associated with burnout, even after controlling for a lot of different demographic and practice characteristics. Quantitatively, physicians who have identified these stressors are more likely to be burned out than physicians who haven't."

The findings were published on Wednesday, Dec. 5, in the *Journal of the American Medical Informatics Association*.

Many prior studies have looked into the factors that contribute to burnout in health care, said Gardner, lead author and also a senior medical scientist at Healthcentric Advisors. Besides health information technology, these factors include chaotic work environments, productivity pressures, lack of autonomy and a misalignment between the doctors' values and the values they perceive the leaders of their organizations hold.

She added that prior research has shown that patients of burned-out physicians experience more errors and unnecessary tests.

## **EHR-related stress**

The Rhode Island Department of Health (RIDOH) surveys practicing physicians in Rhode Island every two years about how they use health

information technology, as part of a legislative mandate to publicly report health care quality data. In 2017, the research team included questions about [health information technology](#)-related stress and specifically EHR-related stress.

Of the almost 4,200 practicing physicians in the state, 43 percent responded, and the respondents were representative of the overall population. Almost all of the doctors used EHRs (91 percent) and of these, 70 percent reported at least one measure of EHR-related stress.

Measures included agreeing that EHRs add to the frustration of their day, spending moderate to excessive amounts of time on EHRs while they were at home and reporting insufficient time for documentation while at work.

The researchers found that doctors with insufficient time for documentation while at work had 2.8 times the odds of burnout symptoms compared to doctors without that pressure. The other two measures had roughly twice the odds of burnout symptoms.

The researchers also found that EHR-related stress is dependent on the [physician's](#) specialty.

More than a third of primary care physicians reported all three measures of EHR-related stress—including general internists (39.5 percent), family medicine physicians (37 percent) and pediatricians (33.6 percent). Many dermatologists (36.4 percent) also reported all three measures of EHR-related stress.

On the other hand, less than 10 percent of anesthesiologists, radiologists and hospital medicine specialists reported all three measures of EHR-related stress.

While family medicine physicians (35.7 percent) and dermatologists (34.6 percent) reported the highest levels of burnout, in keeping with their high levels of EHR-related stress, hospital medicine specialists came in third at 30.8 percent. Gardner suspects that other factors, such as a chaotic work environment, contribute to their rates of burnout.

"To me, it's a signal to [health](#) care organizations that if they're going to 'fix' burnout, one solution is not going to work for all physicians in their organization," Gardner said. "They need to look at the physicians by specialty and make sure that if they are looking for a technology-related solution, then that's really the problem in their group."

However, for those doctors who do have a lot of EHR-related stress, [health care](#) administrators could work to streamline the documentation expectations or adopt policies where work-related email and EHR access is discouraged during vacation, Gardner said.

She also suggested that making the user interface for EHRs more intuitive could address some stress; however, when the [research team](#) analyzed the results by the three most common EHR systems in the state, none of them were associated with increased burnout.

Earlier research found that using medical scribes was associated with lower rates of burnout, but this study did not confirm that association, which Gardner found surprising. In the paper, the authors suggest that perhaps medical scribes address the burden of documentation, but not other time-consuming EHR tasks such as inbox management.

Since the survey was not anonymous and the RIDOH is responsible for licensing physicians in the state, the doctors likely underreported their levels of [burnout](#) and stress, Gardner said. However, she believes the associations her team found are still valid and significant.

**More information:** Rebekah L Gardner et al, Physician stress and burnout: the impact of health information technology, *Journal of the American Medical Informatics Association* (2018). [DOI: 10.1093/jamia/ocy145](https://doi.org/10.1093/jamia/ocy145)

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