

Electronic Health Records Are Associated with Higher Quality in Primary Care Practices

Influential studies have documented problems with the quality of health care in the United States, including gaps in delivering preventive and chronic disease care. Physicians in primary care practices have been encouraged to address these shortcomings by investing in electronic health records and other new tools for providing care. In a new study, a team led by RAND researcher Mark Friedberg assessed the relationship between these recommended practice investments and the quality of primary care.

Specifically, researchers surveyed 305 Massachusetts primary care practices in 2007 to assess their use of 13 recommended capabilities. These included giving physicians feedback on their performance, sending reminders to physicians and patients about needed services, having language interpreter services, offering appointments on evenings and weekends, and using electronic health records. The researchers then studied whether these capabilities were linked to better performance on 13 measures of quality of care for diabetes treatment, depression care, overuse of medical technology, and preventive health screenings.

The study found that:

- Among all investigated practice capabilities, electronic health records were associated with the greatest magnitude of higher performance on the widest range of quality measures: breast cancer screening, colorectal cancer screening, chlamydia screening, and two measures of diabetes care. Statistically significant differences in performance ranged from 3.1 to 7.6 percentage points.
- Electronic health record systems were linked to higher-quality care when they included advanced functions such as electronic reminders to physicians, but more-rudimentary systems had fewer and smaller associations with performance.

Among the remaining 12 recommended capabilities, there was an association between frequent meetings to discuss quality and higher performance on three measures of diabetes care, and between physician awareness of patient experience ratings and higher performance on two screening measures. No other practice capabilities were associated with better performance on more than one measure. No capabilities—including electronic records—were associated with performance on depression care or overuse of medical technology.

While quality differences were modest in size, the study is one of the first to demonstrate a link between use of electronic health records in community-based primary care practices and higher-quality care.

These findings suggest that to see quality improvements, “medical home” demonstration projects should prioritize electronic health records among their investments in the capabilities of primary care practices. The study also has implications in the context of recent federal legislation, which will give physicians new incentives to make “meaningful use” of electronic health records. The results suggest that since electronic health records may have stronger and wider-ranging effects on quality when they include advanced functionalities, these advanced functionalities should be considered as criteria for the “meaningful use” of electronic health records.

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