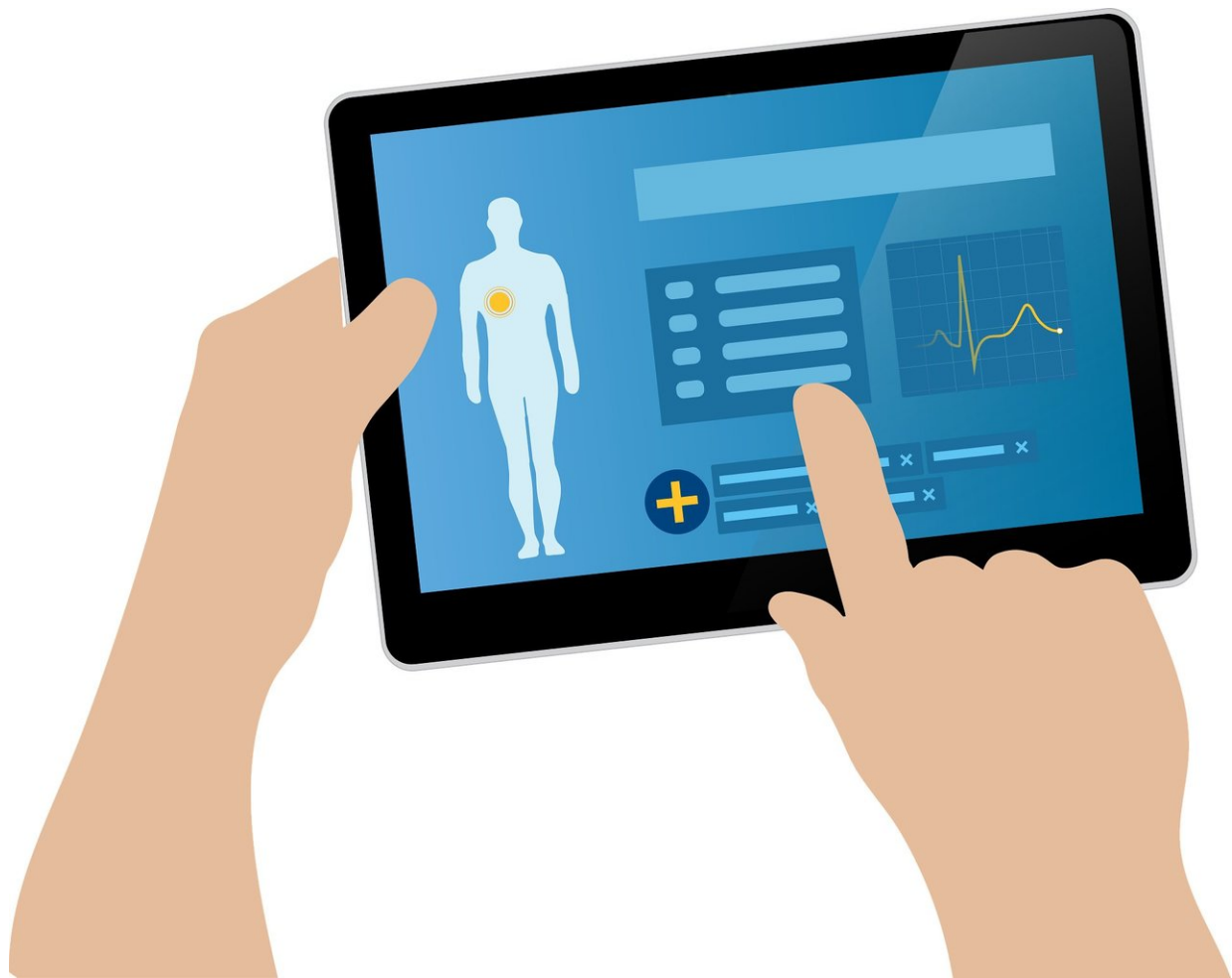


Optimizing electronic health records: Study reveals improvements in departmental productivity

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In a study [published](#) in the *Annals of Family Medicine*, researchers at the Marshall University Joan C. Edwards School of Medicine identify transformative effects of electronic health record (EHR) optimization on departmental productivity. With the universal implementation of EHR systems, the study sheds light on the importance of collaborative efforts between clinicians and information technology (IT) experts in maximizing the potential of these digital tools.

The study, led by a team of health care professionals in a family medicine department, embarked on a department-wide EHR [optimization](#) initiative in collaboration with IT specialists over a four-month period. Unlike previous efforts that primarily focused on institutional-level successes, this study delved deep into the intricacies of EHR interface development and its impact on clinical workflow.

"There has been a longstanding disconnect between EHR developers and end-users, resulting in interfaces that often fail to capture the intricacies of clinical workflows," said Adam M. Franks, M.D., interim chair of family and community health at the Joan C. Edwards School of Medicine and lead researcher on the study. "Our study aimed to bridge this gap and demonstrate the tangible benefits of collaborative optimization efforts."

The methodology involved an intensive quality improvement process engaging clinicians and clinical staff at all levels. Four categories of optimizations emerged: accommodations (adjustments made by the department to fit EHR workflows); creations (novel workflows

developed by IT); discoveries (previously unnoticed workflows within the EHR); and modifications (changes made by IT to existing workflows).

Key findings from the study showed significant improvements in productivity: The optimization efforts led to remarkable enhancements in departmental productivity. Monthly charges increased from 0.74 to 1.28, while payments surged from 0.83 to 1.58. Although monthly visit ratios also increased from 0.65 to 0.98, the change was not statistically significant.

The study also revealed that a significant number of solutions to EHR usability issues were already embedded within the system, emphasizing the need for thorough exploration and understanding of existing workflows.

Finally, accommodation optimizations underscored the necessity for better collaboration between EHR developers and end-users before implementation, highlighting the potential for more user-centric design approaches.

"Our study not only demonstrates the efficacy of departmental collaboration with IT for EHR optimization but also underscores the importance of detailed workflow analysis in enhancing productivity," Franks said.

The research provides valuable insights for health care institutions aiming to maximize the potential of their EHR systems, with implications for improving patient care, efficiency and overall organizational performance.

In addition to Franks, co-authors on the study included Charles Clements, M.D., Tammy Bannister, M.D., Adrienne Mays-Kingston,

M.D., Ashley Beaty, MSN, RN-BC, Alperen Korkmaz, M.Ed., John A. Parker, M.D., and Stephen M. Petrany, M.D.

More information: Adam M. Franks et al, Optimization of Electronic Health Record Usability Through a Department-Led Quality Improvement Process, *The Annals of Family Medicine* (2024). [DOI: 10.1370/afm.3073](https://doi.org/10.1370/afm.3073)

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