



HHS Public Access

Author manuscript

JAMA. Author manuscript; available in PMC 2022 August 29.

Published in final edited form as:

JAMA. 2022 August 23; 328(8): 707–708. doi:10.1001/jama.2022.13391.

The Need for Electronic Health Records to Support Delivery of Behavioral Health Preventive Services

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In its report

Implementing High-Quality Primary Care, the National Academies of Sciences, Engineering, and Medicine called for “designing information technology that better serves the patient, family, and interprofessional care teams.”¹ The report recommended that digital health systems should be person-centered, ensure equitable access and use, and simplify the user experience, and called for vendors to be held accountable for whether their systems achieve these goals. The need for person-centered, simplified experience in digital health crosses several domains, including delivery of preventive services. Historically, digital health platforms have implemented strategies to improve some preventive health domains such as cancer screening but have not comprehensively addressed preventive services of behavioral and social needs.

To accomplish digital health goals, it is essential to adhere to several of the key principles outlined in the report. First, digital health systems need to make it easy for clinicians to deliver national guidelines and quality recommendations. While there is debate on some guidelines and quality goals, for most, there is clear agreement on what standard care should be. Digital health systems need to have these guidelines and goals embedded as standard functionality and not require local tailoring and configuration. Second, digital health systems need to make information actionable for clinicians and patients. This can occur through automated delivery of screening instruments to patients before office visits, built-in scoring

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Conflict of Interest Disclosures: None reported.

Additional Information: Dr Epling was a member of the US Preventive Services Task Force (USPSTF) from 2016–2020; Dr Krist was a member of the USPSTF from 2014–2019 and served as chair from 2020–2021.

of screening instruments, alerts and reminders for patients and clinicians when care is needed, and educational material to engage and activate patients.² Third, digital health systems need to be easy to use; they should be intuitive for users, easily accessible, and not require complex workflows to enter and retrieve data.

Electronic health records (EHRs) and their associated patient portals are the foundation of the digital health environment. EHRs are a powerful tool for clinicians to access patient information, document and order care, and be alerted of recommended services, including behavioral preventive health services, such as for depression, intimate partner violence, and unhealthy alcohol use. The EHR has become such an essential tool for care that much of a clinician's patient care time is spent working in the EHR, accounting for more time than spent face to face with the patient.³ Fundamentally, this means that the content in the EHR and how it is presented to clinicians can change how clinicians care for their patients, positively or negatively. Screening for preventable conditions is necessary for high-quality care; however, behavioral and mental health screenings are less commonly addressed during clinical encounters and are underresourced in the EHR.⁴

A national quality improvement initiative to improve primary care management of unhealthy alcohol use highlights some essential changes needed from EHRs to meet the National Academies' digital health recommendation. In this initiative, the Agency for Healthcare Research and Quality funded 6 primary care networks to provide practice facilitation for 125 practices to improve screening and counseling for unhealthy alcohol use.⁵ Unhealthy alcohol use is an important cause of preventable death. Screening and counseling are recommended by the US Preventive Services Task Force (USPSTF), are easily delivered in primary care, and have demonstrated improvements in health outcomes but are sorely underdelivered in routine practice.⁴

To date, practice facilitation has been provided to 67 practices. This included assembling practice champions to review and assess their current workflow, identification of EHR resources for delivering care, and development of a workflow to better support recommended care. Of the 67 practices, 40 had 3 versions of a large, widely distributed EHR administered by their health system. The 3 versions of this EHR had 6 different pathways to document alcohol use, using 4 different screening questionnaires, only 1 of which was recommended by the USPSTF.

No health system's EHR scored the responses, had an alert to show the patient was due for screening, or had a feasible way for informatics staff to automate sending the screener to patients outside of a visit. In these EHRs, between 2 and 8 clicks were needed for clinical staff to administer the screening when the patient arrived for a visit and another 2 to 8 clicks were needed for the clinicians to review the information. In 1 health system, the electronic workflow was so cumbersome, taking nearly 12 clicks to administer and 12 to review, that the system implemented a paper system to deliver the service.^{6,7}

These examples highlight the lack of alignment between standard EHR functionality and evidence-based care. Most health systems have had to improve EHR pathways through substantial tailoring after the baseline EHR was implemented. Local tailoring is

valuable and necessary for meeting the needs of communities and practices; the balance of standardization and tailoring is ambitious and critical. However, tailoring must begin from an evidence-based, guideline-driven foundation that is easily accessible. No health system would intentionally customize their EHR by requiring multiple clicks to reach a recommended screening instrument. Customization should not be required to make widely accepted, evidence-based guidelines usable by clinicians. Further, standard EHR functionality should include patient-oriented screening, ideally allowing for patients to complete screening prior to their visit, make the results easily visible to the clinician, and, importantly, score and identify the results as abnormal if indicated. This should be accomplished with a minimal amount of user effort and few clicks.

The EHR also should have programmed alerts that are automatically satisfied by patient completion and clinician review. Standard functions should include a registry to identify noncompleted screenings and to track patients who screen positive. Customization should not be required for essential functionality but should be allowed for more specific choices, eg, decisions on which recommended screening instruments to use and which educational material or local resources and programs to include. In several large EHRs, immunization alerts and smoking status reminders have been optimized to ensure quick access and ease of completion.⁸ Cancer screening alerts, such as for colon cancer, and automated completion are standard in most EHRs, but because of the complex nature of behavioral health recommendations EHRs are often inadequately structured to provide support for patient completion and improvement of patient outcomes.⁹

EHR vendors and hospital systems have worked to improve the digital health interface over the past decade. Many of the basic principles for better serving patients, families, and interprofessional care teams have been operationalized for more conventional biomedical services such as procedures and laboratory results. However, the experience with EHR-based alcohol screening highlights a large gap in EHR functionality for health behaviors, mental health, and social needs. Health behaviors, mental health, and social needs contribute more to health and well-being than conventional biomedical services,¹⁰ but clinician influence on these issues can be challenging because of inadequate identification through screening, lack of resources, and social stigma. The challenge for digital health is to account for the several components of behavioral health interventions. These preventive services are multistep processes that include screening for risks and then addressing identified needs through counseling or referral to services. The EHR must mirror the multistep process and adapt as patient data are entered to provide counseling and referral support as at-risk individuals are identified, there by ensuring the intervention is fully delivered. Use of these tools should autosatisfy full completion of the preventive service. Behavioral health and preventive services affected by social determinants should take priority in EHR redesign. Some health systems have made great strides to customize the EHR to address social needs, but these innovations are not standard across systems.

Admittedly, addressing EHR usability and interoperability across vendors is difficult. The US Office of the National Coordinator for Healthcare Information Technology (ONC) has been assisted in this effort by the passage of the 21st Century Cures Act, which includes requirements for usability and interoperability reporting by EHR vendors. But

much more can be done. The ONC current EHR certification process, currently voluntary, could be made mandatory. There could be further requirements developed as part of this certification for better standard implementation of preventive service reminders and management tools. EHR companies would then compete, not on availability of what should be basic functionality, but on usability details and client service.

A refocus is needed in digital health to a move away from best business practices that help EHR vendors and health systems and move toward best health-related practice, including delivery of behavioral health preventive services, that improves care for patients and makes work easier for clinicians.

Funding/Support:

This work was funded by grant 1R18HS027077–01 from the Agency for Healthcare Research and Quality (Dr Huffstetler).

Role of the Funder/Sponsor:

The Agency for Healthcare Research and Quality had no role in the preparation, review, or approval of the manuscript and decision to submit the manuscript for publication.

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