Health Workforce Research Brief
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**Fitzhugh Mullan
Institute for Health
Workforce Equity**
THE GEORGE WASHINGTON UNIVERSITY

Perceptions of Electronic Health Records Effects on Staffing, Workflow, & Productivity in Community Health Centers

Leah E. Masselink and Clese E. Erikson

BACKGROUND

Significant Federal investments under the Health Information Technology for Economic and Clinical Health Act of 2009 and the Affordable Care Act have motivated many community health centers (CHCs) to implement electronic health records (EHRs) in the past few years. The number of CHCs using EHRs has more than doubled since 2009. CHCs are also known to use flexible and innovative staffing models, so their rapid uptake of EHRs creates a unique opportunity to study how the introduction of new technology influences staffing models, staff roles, and workflow, and how these changes in turn influence productivity, coordination between providers, and quality of care.

Evidence suggests that EHR implementation causes significant changes in how primary care clinicians spend their time and may be associated with changes in staff and facility level productivity. However, the mechanisms to explain these changes were mostly speculative. These gaps suggest the need for additional qualitative evidence to understand how EHRs interact with staffing models, staff roles, and workflow, and how this interaction influences productivity, coordination and quality of care in CHCs.

The goals of the project are to understand how, from the perspective of clinicians, support staff and administrators, CHCs' implementation of EHRs has changed staffing models, staff roles, and workflow, as well as the mechanisms by which EHRs influence staff productivity, coordination between providers, and quality of care.

METHODS

We conducted telephone interviews with 17 administrators, clinicians, and other staff members (including EHR administrators, IT, quality improvement staff, and case managers) at 6 CHCs representing a variety of staffing configurations and EHR experience levels to answer the following research questions:

- How do administrators, clinicians, and staff members believe that EHR implementation: 1) changed staff roles and workflow, 2) influenced CHC productivity, or 3) led to improved coordination between providers or quality of care?

We audio recorded the interviews with participants' permission. We transcribed the recordings and imported the transcripts into ATLAS.ti, a qualitative data analysis software package, for coding and thematic analysis.

KEY FINDINGS

1. Our findings suggest that EHRs have changed nearly every aspect of providing care in CHCs, from staffing decisions to workflow to quality tracking and reporting.

2. Many new staff roles described by informants were designed to take advantage of EHR functions to reduce provider burden (e.g. upgraded MA or LPN roles) or improve population health and quality tracking (e.g. new QI staff).

3. Respondents believe that EHRs have led to decreased productivity, in part due to Meaningful Use and other reporting requirements.

4. Regularly convening a group of CHC administrators and providers could be an important avenue for informing HRSA policies and guiding EHR updates.

FINDINGS

Informants reported that EHR implementation led to changes in staffing, including hiring new staff members, as well as expanding roles for existing staff members. With a few exceptions, most new staff members hired were in support roles such as LPNs, MAs, or QI staff. Some sites also hired IT staff, while others outsourced IT support tasks to external networks or EHR vendors. Several sites also report that EHRs enabled them to make changes to staff roles (especially LPNs and MAs) that enabled "every person [to] work at the top of their license" by upgrading their involvement in workflows using EHR tools like standing orders and medication lists.

Sites reported EHRs improved coordination within the CHC, generally making it easier to find and share information, medication lists, and behavioral and dental health records. However, sharing patient information with outside providers remained a significant challenge for all, resulting in manual entry and use of add-on products to facilitate communication. Informants generally viewed documenting care in EHRs as enhancing quality of patient care, but there was consensus across sites that using EHRs led to decreased productivity, in part due to overly specific HRSA and CMS reporting requirements (UDS and Meaningful Use).

CONCLUSION

Our findings suggest that EHRs have changed nearly every aspect of providing care in CHCs, from staffing decisions to workflow to quality tracking and reporting. They make certain aspects easier—e.g. tracking population health measures, sharing information within the CHC—but also introduce new burdens on providers and other staff members. Many new staff roles described by informants were designed to take advantage of EHR functions to reduce provider burden (e.g. upgraded MA or LPN roles) or improve population health and quality tracking (e.g. new QI staff). Other roles were designed to manage new challenges introduced by the EHR (e.g. new IT staff members or scribes). Our study suggests that EHR data can be useful in fostering more team-based approaches to care by making providers more willing to delegate certain tasks to other providers or staff members. As EHR tools become more embedded in practice over time, they could become a valuable new tool for CHC leaders to analyze the contributions of different staff members and use the information to optimize their staff configurations.

Despite informants' reports that EHRs were helpful for coordination and quality of care, most did not think their use of EHR systems in these areas had reached its full potential in supporting new population health activities such as tracking patients with certain conditions and sharing information with outside providers to improve coordination of care. EHRs offer much greater potential for extracting and sharing information than paper records, but both functions seem to rely on add-on platforms in some cases (rather than the original EHR), which adds expense and requires additional staff time and expertise. Although most informants reported that their CHCs had used EHRs successfully to share information, coordinate care, and identify quality improvement issues, our findings suggest that the combined "learning curve" and ongoing time requirements of using of EHRs for both UDS and Meaningful Use reporting has created new barriers to productivity for providers and support staff that cannot easily be surmounted even through software optimization or provider and staff learning.

POLICY IMPLICATIONS

Use of EHRs in CHCs continues to grow, and CHCs are finding creative ways to adapt staff roles and models to use them to improve coordination and quality of care. It will be important for HRSA to continue to support CHCs in implementing EHRs, particularly their use in meeting UDS and Meaningful Use reporting requirements. Participants expressed some concern that UDS and Meaningful Use reporting requirements are sometimes overly burdensome and do not necessarily measure indicators of quality care. Particularly as the Meaningful Use program transitions to its new "Advancing Care Together" incarnation in 2017, HRSA could consider regularly convening a group of CHC administrators and providers to give feedback and recommendations on EHR designs, UDS and Meaningful Use implications that could then be shared with EHR vendors and CMS regulators (as well as HRSA itself). Given the ongoing reported challenges with maintaining productivity levels post EHR implementation, it will also be important to continue to monitor productivity trends at CHCs as new technologies and care models are adopted.