Evidence Brief - November 2023

Health Profession Trainee Needs during Electronic Health Record Modernization (EHRM)

SCHOLAR QUERI

Issue

EHR transitions are disruptive endeavors that have potential negative effects on EHR use and confidence[i]. Health professions trainees (HPTs) are particularly vulnerable to such transitions' adverse effects, as they depend on well-functioning health systems to learn to deliver Veteran care and participate in clinical education. Furthermore, strategies for making EHR transitions smoother for employees may not always be transferable to trainees, who have unique time constraints and needs. As HPTs are involved in the care of about 35% of all Veterans in VA[ii],VA sites undergoing EHR transition must minimize disruptions to HPT care provision.

We conducted longitudinal surveys and interviews with HPTs, site leaders, and clinical supervisors at Columbus VAMC, and we conducted surveys with individuals of analogous positions at four non-EHR transition sites. Together, these surveys and interviews elicited information about trainee EHR use, EHR satisfaction, EHR training, and overall satisfaction with training experiences at VA.

Key Findings

Patient caseload and procedural volume can present problems for HPT learning requirements

EHR modernization resulted in decreased patient caseload and procedural volume for transitioning sites. The decreased volume was most pronounced in the months following the transition and did increase; however, lowered volumes persisted at sites 10 months after transition. Reduced patient volume can mean some trainees may not meet program requirements for number of clinical encounters, surgeries, and procedures. This poses a risk to VA ACGME accreditation and several academic affiliates stopped sending trainees to VAMCs undergoing EHRM.

> "As a senior resident the expectation is we see 10-15 people a day…we're seeing 2-4 […and] this is the time [senior residents] would hope to be operating a lot." (S204, 1-month pre)

Tracking HPT clinical skill acquisition and experience is sometimes interrupted

During transitions, relied-upon mechanisms for tracking HPT clinical experience (e.g., numbers and types of procedures and clinical encounters) are disrupted. At one site, training program leaders found reports of these figures extracted from the new EHR to be unreliable. Additionally, the EHR function that allowed VA attendings to earn "workload credit" for their role supervising HPT encounters was similarly disrupted.

There is a perceived difference in EHR uptake between HPTs and attendings

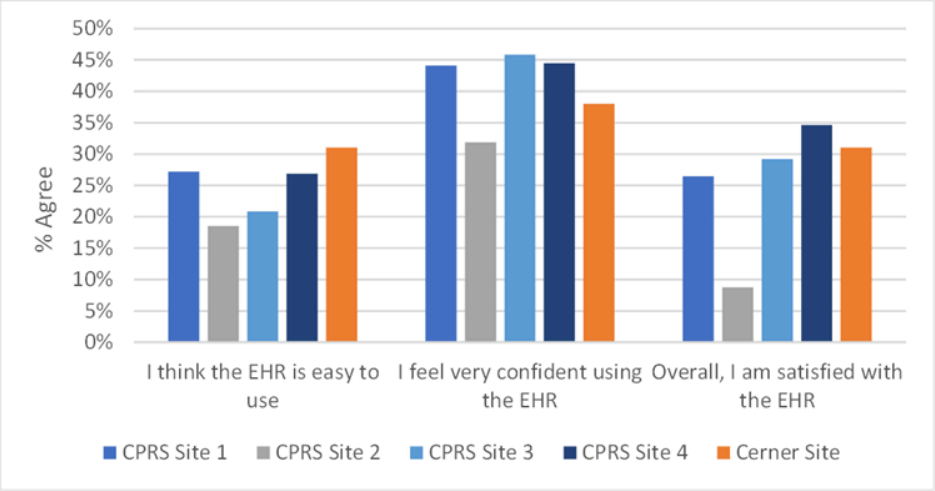
HPTs' frequent contact with the new EHR, combined with a relative lack of exposure to CPRS/Vista, appeared to give them a leg up in adjusting to the new EHR. In some cases, attendings learn EHR tips and tricks from their trainees. This happens even as some attendings are reluctant to take on HPTs while learning the new EHR themselves.

"A trainee that [doesn't] have…experience using CPRS, [doesn't] really have this kind of preconceived notion of how things should work, and I think that's probably making things a little bit easier." (S201, 10-months post)

All HPTs go through an EHR learning process, whether for the previous or the new EHR

Regardless of whether HPTs do their rotations at a transition or non-transition site, they must learn how to use an EHR new to them — either the homegrown Vista/CPRS or a VHA-specific version of Oracle Health.

Table 1. EHR use, confidence, and satisfaction a 4 non-transition (CPRS) sites and 1 transition (Oracle Cerner).



Strategies from the Field

Strategies to mitigate adverse effects on HPTs originated at local and national levels. While some systemic issues require national solutions, much work is done at the local level to mitigate EHRM's adverse effects on safe and effective HPT care provision and learning.

Local training materials for HPT-specific issues were needed and important

Many clinicians created resources to supplement Oracle-hosted EHR trainings (e.g., guides, bootcamps, walkthroughs), including individuals for whom these tasks fell outside of their job responsibilities. These resources were considered useful and beneficial by trainees and their supervisors.

"During the rotations we wrote a Cerner trainee boot camp…an eight-page document with screen captures on how to set up a trainees account from scratch to utilize Cerner as a trainee, and then also the steps on how to do the basics [:] proposed orders to your attending, send notes to your attending, fill out, drop your charges, that kind of stuff….We've got like an 8-10 page document that helps a clinic get trainees into Cerner…how to safely make a note and interact with your attending inside of Cerner." (S201, 10-months post)

Local efforts mattered in improving HPT EHR learning processes

At Columbus, local advocacy led to significant improvements in HPT's EHR trainings. In response to overwhelmingly negative feedback on the first round of EHR training, Oracle leadership revamped in-person and online components, eliminating content redundancy and reducing required hours.

Instructor-led, in-person, informal trainings are preferred

Trainees overwhelmingly found VA clinician-led training superior to Cerner-hosted trainings, as actual product users knew VA-specific workflows, workarounds, and needs. In-person trainings were considered more relevant than online/TMS trainings and were accomplished in less time. Finally, informal training (e.g., peer-to-peer instruction) were among the most preferred forms among HPTs.

"The single small group eye care provider familiar with system training has probably been the single positive thing…that would be the highlight of things that were helpful." (S205, 10-months post)

Site-specific contexts matter

Many Columbus clinicians and site leaders made intentional efforts to engage in site-to-site learning with VAMCs that had already gone through EHRM; this facilitated EHR learning. *However*, site-led materials and instruction must still be tailored for specific site contexts. Successful VAMCs will recognize that different workflows and service areas require resource adaptation.

Takeaways

- Program leadership must play active role in developing local training for HPTs. Materials and resources from other facilities may need to be adapted extensively to reflect site-specific needs.
- Beware of and plan for disruptions in the ability to track HPT clinical experience and the ability to link HPT work to their attendings for workload credit.
- Anticipate substantial reductions in overall encounter and procedure volume during the transition, with more severe reductions in clinical settings most affected by the new EHR, and make contingency plans to ensure HPTs get adequate experience.

References:

[i] Campbell EM, Sittig DF, Ash JS, Guappone KP, Dykstra RH. Types of unintended consequences related to computerized provider order entry. Journal of the American Medical Informatics Association 2006 Sep 1;13(5):547-56.
[ii] U.S. Department of Veterans Affairs [Internet]. OAA fact sheet: Medical and dental education. Veterans Health Administration, 2022 Feb 14. [cited 2022 Nov 4]. Available from: https://www.va.gov/oaa/medical-and-dental.asp

For More Information:

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