AMIA 2020 Clinical Informatics Conference 2020 Panel Proposal

Unleashing the Potential of the EHR

Panelists:

Mitchell Josephson, VP Arch Collaborative; KLAS Research; Paula Scariati, CMIO, Dignity Health; Lee Milligan, SVP & CIO, Asante Health; Rod Tarrago, CMIO, Seattle Children's Hospital; Amy Chaumeton, CMIO, Legacy Health

What might the attendee be able to do after being in your presentation?

This panel will discuss the data-validated EHR optimization, improvement, and usability best practices from research from over 130,000 clinicians from 210 Healthcare organizations across the country and specifically learnings from clinical leaders from Asante, Dignity Health, Seattle Children's, and Legacy Health etc. Through attending this panel, listeners will be able to

1. Identify the 3 key most impactful variables in this body of research in terms of improving clinicians experience with the EHR.
    - **EHR Mastery**
    - **Shared Ownership**
    - **Personalization Adoption**

2. Take a self-audit of the organization they are associated with by answering to themselves these questions:
    - Does our EHR have a mission statement? And are the right stakeholders helping the organization fulfill that mission statement? Do our clinicians buy into the mission and feel that the EHR is enabling quality care and patient centered care?
    - Have our clinicians been given the time needed to learn not just the basic functions, but learn the cultural workflows that our EHR represents?
    - Have the clinicians been given the opportunity and been held accountable to learn the EHR well, and personalize their digital care environment?

3. Learn from the case studies of several organizations who have data-validated successful EHR experiences for their clinicians.

Description of the Problem or Gap

The primary challenges facing clinical end-users include poor initial and ongoing training within the EHR, poor organizational governance over the change management process and software capability. Currently, most clinical end users receive less than 4 hours of initial training and no ongoing training beyond their onboarding experience. Additionally, while many clinicians cite "clicks" as the problem,

when pressed further, deeper implications emerge. As one clinician interviewed explained, “I have stopped asking for help because the people teaching make me feel stupid.”

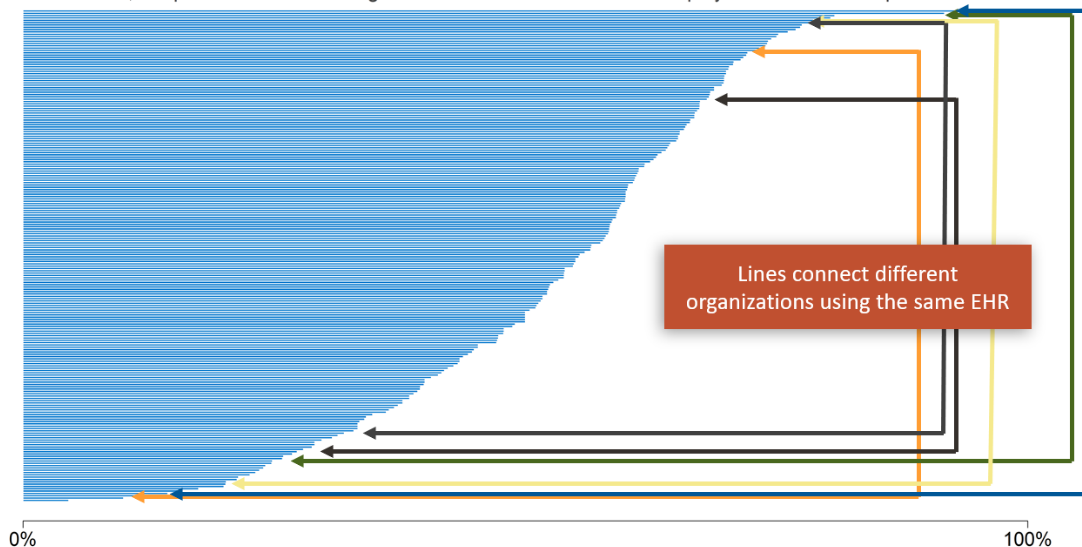
One major barrier to clinician satisfaction with the EHR remains the human element behind the technology. Many clinicians feel their hands are tied in the ability to do what they are experts at – providing care, because of the tasks they haven’t been trained for – working within the EHR.

Methods

KLAS has created a standardized satisfaction benchmarking survey available for organizations to disseminate among their clinical end-users. While the initial iteration of this benchmarking effort (and therefore the largest, core dataset) focused on doctors, updated survey sends include nurses and other care partners satisfaction, trainer benchmarking data and preliminary outcomes data.

KLAS asks each respondent a list of 11 questions deriving an overall satisfaction metric, then KLAS asks respondents to provide insight into their user demographics, i.e. years practicing medicine, years on the EHR, type of documentation methods, self-reported charting efficiency, self-reported burnout level and contributors, etc. then KLAS correlates these 11 dependent variables to the independent user demographics to uncover cross organizational trends and insights establishing a benchmark.

Results: Sample data to be used in the panel discussion, more data available upon panel approval.

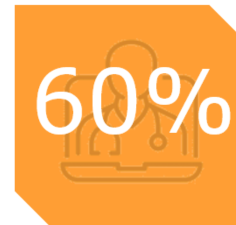


Where does the Variation Come From?

EHR Vendor

Organization

Clinician Users



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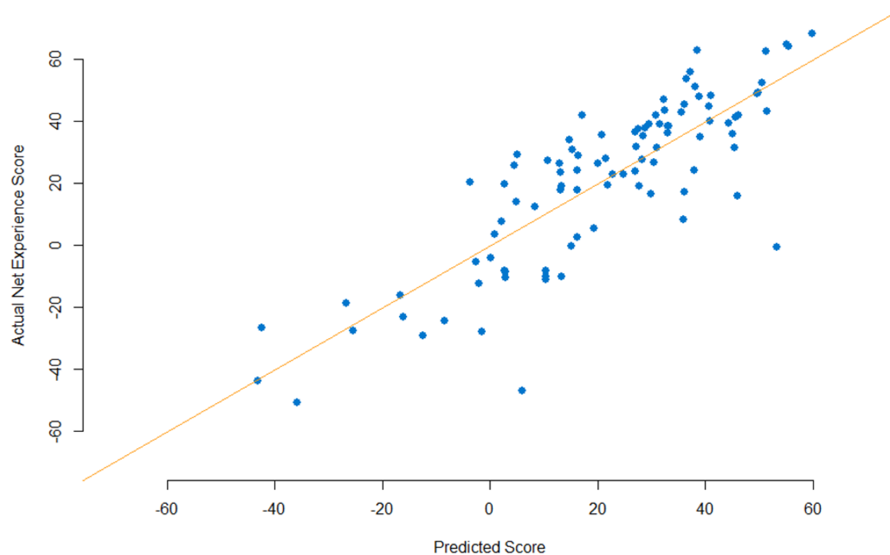
Overall Collaborative Trends

Variables That Matter Most

- **Organization**'s Support of EHR
- Initial and Ongoing **Education**
- Adoption of **Personalization Tools**

$r^2 = .69$

With these three variables, we can explain about 70% of the variation in a user's experience with the EHR



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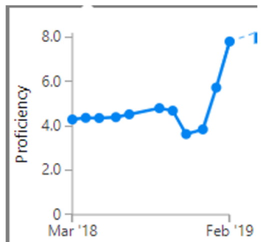
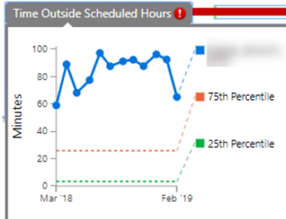
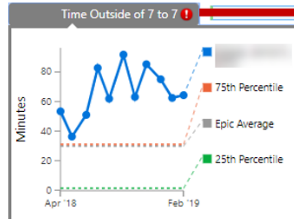
Preliminary Data

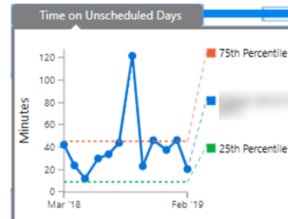


Epic proficiency doubled

Note: This data was received by Legacy. This is not KLAS data.

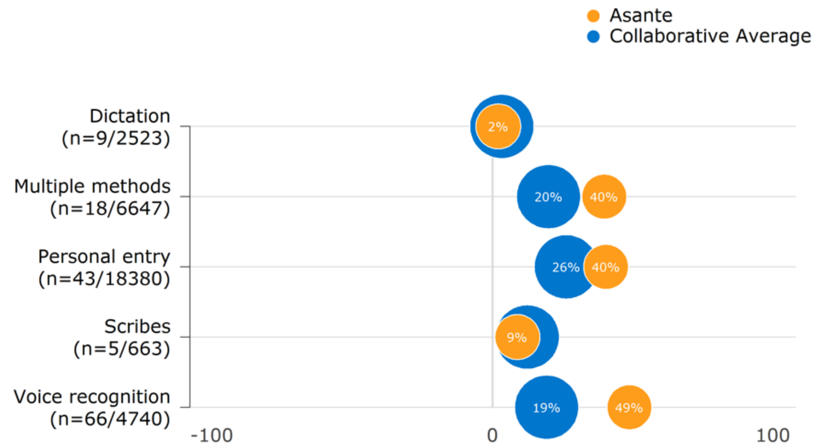






Time outside 'working hours' decreasing

Benchmarked Net EHR Experience—By Documentation Method
Physicians and advanced practice clinicians only



Discussion of Results

The Arch Collaborative dataset measures satisfaction of clinicians and benchmarks organizations against each other. This benchmarking allows us to understand what variables are influencing the overall satisfaction level of clinicians. Through the research, KLAS has found that 22% of the variation in satisfaction can be explained by the EHR vendor in use, 18% can be explained by the governance and

culture of the organization in question, and 60% of satisfaction variation comes from factors within the control of clinical users themselves. KLAS has found that there are three key components to making a successful EHR user:

- **Organizations need to create a Strong User Mastery environment for clinicians**
  - *Amy Chaumeton, CMIO at Legacy Health will share recent examples from her EPIC UGM presentation where they have seen significant improvement with EHR proficiency. Proficiency has doubled for those who have taken advantage of the thrive trainings. These trainings include a three day offsite retreat like environment for providers to detach and become more personally acquainted with their use of the EHR.*
- **Organizations and Vendors need to help create Tool that Meets Unique User Needs**
  - *Lee Milligan, CIO from Asante Health Systems will speak to best practices of helping provider take advantage of speech recognition software. Currently in the Arch Collaborative research, the average score of those using speech recognition is a 19 Net EHR Experience Score (NEES) (-100 to 100) scale. This is fairly low considering the impact that many providers are hoping speech recognition would have on improving EHR proficiency. Asante was an organization who bucked this trend with a NEES of 49 for those using speech recognition well above the collaborative average.*
- **Organizations need to create a Shared Ownership of the EHR between clinical, IT and administration leaders.**
  - *Paula Scariati, CMIO from Dignity Health will share how data they have collected across 1153 of their providers shows a 30 point spread between 8 different Dignity Health divisions re: EHR satisfaction. Variation was attributed to people and process.*
  - *Rod Tarrago, CMIO from Seattle Children's will talk about what they have learned by measuring the satisfaction of their clinician prior to going live on a new EHR system and the lessons they have been able to apply to bring stakeholders together and form what they feel is much stronger inclusive governance structure to support their go-live and ongoing EHR environment.*

Conclusion

Based on the research, KLAS has found the following recommendations for organizations trying to improve their clinical end users' relationship with the EHR:

Onboarding Education:

- New clinicians need a minimum of 5–6 hours[1] of EHR education in their first weeks using the software. Many organizations find it valuable to go beyond this amount, with some offering as much as 20 hours of education.
- Onboarding education is most effective if broken up over the first few weeks. A common successful approach is to have a longer training session on the first day with shorter sessions later on to ensure competency. While it is possible for providers to be poor teachers or for non-clinicians to be very effective teachers, training satisfaction is significantly higher when clinician specialists teach their peers. At a minimum, those doing the training must be familiar with the

very specific needs and workflows of those they are training. While some organizations cannot afford this, peer education is usually the ideal.

- Part of onboarding is setting expectations about how to work as a team. Critical expectations include the following:
    - Clinicians need to understand where to get help, how changes are made to the EHR, and how they can continue to learn.
    - In organizations that have a stable EHR foundation (strong integration, good uptime, clean code, and sufficient core functionality), clinicians need to understand that ultimately their EHR success is their responsibility.
    - No EHR can save physicians from frustration if workloads are allowed to spiral out of control or if necessary, work (charting, inbox management, etc.) is procrastinated and allowed to build up.
    - While EHR personalization may not be effectively taught in the beginning weeks of EHR use, clinicians must have the expectation that effective EHR utilization will almost certainly require strong EHR personalization.

Ongoing Education:

- Clinicians (including providers, nurses, and allied health professionals) report an improved EHR experience with 3–5 hours of EHR education per year. More than 3–5 hours can be helpful but does not have as much impact on EHR satisfaction. Successful organizations understand that users learn the most about the EHR outside the classroom, during day-to-day use within a clinical context. Clinicians' most common source of EHR knowledge is their peers. Successful organizations work to create practice environments where a knowledgeable peer is always accessible. This peer could be a rounding informaticist or a successful local user who is looking to help others.
- The execution of training, including the quality of trainers, is far more important than the structure of training. Both successful and struggling[1] organizations use a variety of structures for training (online training, tip sheets, classes, departmental meetings, at-the-elbow training, etc.), but successful organizations execute their plans in a way that drives high demand for additional education. Demand for additional education can be a measurement of the quality of education provided.
- Off-site trainings can be effective, especially for the inpatient environment. Few organizations offer off-site EHR trainings, but those who do report greater EHR success. Using off-site trainings can make it difficult to address workflow redesign and education, but this method can be especially effective in setting expectations and allowing providers time to personalize the EHR.
- Rounding and training in departmental meetings can often be effective (and less costly) forms of education. These types of training opportunities allow clinicians to learn in short, consumable portions. Additionally, stronger relationships dramatically amplify successful learning.
- Organizations with strong training understand that when education classes are held, effective advertising is key. Headlines such as *"Remove the Suck from Your EHR Use"* or even *"Home for Dinner"* are far more effective than *"Improve Your EHR Skills."* Branding your training efforts can be very helpful as it conveys to clinical EHR users that the training has been well thought out.

References

1. Longhurst, Christopher A., et al. "Local Investment in Training Drives Electronic Health Record User Satisfaction." *Applied clinical informatics* 10.02 (2019): 331-335.