

When Transitioning Electronic Medical Records (EMRs)

Introduction

Electronic Medical Records (EMRs) first began to appear in hospital systems starting in 1972. Initially, utilization of EMRs was slow with only 18% of hospital using some form of EMRs by 2001. Since then, technology has improved, implementations have become easier, and hospitals have begun searching for new streams of revenue, resulting in the exponential growth of the use of EMRs. The Office of the National Coordinator for Health Information Technology (ONC) estimated that 96% of hospitals were using some sort of EMR in 2016.

Despite budgetary concerns compounded by the COVID-19 pandemic, EMR spending (including implementation, switching vendors, upgrades, etc.) is projected to increase by 19% every year until 2024. The increased investment is largely due to the fact that hospitals are turning to EMRs to help facilitate long term financial stability, as Morris (III.) Hospital & Healthcare Centers explained, "unreliable digital health information can lead to clinical documentation errors and ultimately billing and collection problems downstream."

Of the 96% of hospitals who use some sort of EMR, it is predicted that in any given year 5-12% will invest in upgrading or switching EMR platforms, vendor tools, or other components. The proper EMR transition can help hospitals reap the benefits of workflow efficiency, greater data integrity, and downstream financial gains.

Covenant Health, a Tewksbury, Mass.-based health system, cited its \$83 million Epic EHR implementation in 2017 for a \$60.9 million operating loss in 2018. The hospital reported a 30% decrease in productivity after the implementation, as well as physician turnover, which contributed to further financial issues.

Security measures, pre-transfer testing, clinical team feedback, and template review can all factor into a successful transition.

- ¹ Admin, "EMR: The Progress to 100% Electronic Medical Records," The University of Scranton Online, August 30, 2018, https://elearning. scranton.edu/resource/health-human-services/emr_the-progress-to-100-percent-electronic-medical-records.
- ² "A History of EHRs: 10 Things to Know." Becker's Hospital Review. Accessed April 23, 2021. https://www.beckershospitalreview.com/healthcare-information-technology/a-history-of-ehrs-10-things-to-know.html#:~:text=The%20EMRs%20of%20today%20first,5.
 ³ "Hospital EHR Spending Projected to Reach \$9.9B by 2024," Healthcare IT News, May 21, 2020, https://www.healthcareitnews.com/news/hospital-ehr-spending-projected-reach-99b-2024.

⁴ Ibid.

⁵ Ibid.

⁶ Laura Dyrda, "12 Big EHR, Patient Record Issues in 2019 so Far," Becker's Hospital Review, accessed April 23, 2021, https://www. beckershospitalreview.com/ehrs/12-big-ehr-patient-record-issues-in-2019-so-far.html.

Challenges >

Technology literacy and security:

- Staff unfamiliarity with the new EMR, its functionality, and capabilities leads to workflow inefficiencies
- Transferring files from the old EMR to the new EMR presents digital security risks

Multi-site systems:

- Hospital systems with multiple sites often have different capabilities, initial EMR platforms, and data present on their EMRs
 - This differentiation frequently leads to slower and costlier implementations than predicted
- Different sites may have different rollout capabilities that may not be documented or tested prior to new EMR implementation

Technology compatibility:

 Systems often downloaded records and files in a previously generic format and have found that the previous format is not backwards compatible with the new EMR format

Clinical feedback:

 Clinical needs, expertise, or point of view are often overlooked leading to a less than userfriendly and efficient EMR interface on their end

Experience

 Hospital systems that have never transitioned EMRs before can lack internal expertise of the process and best practices

Best Practice Solutions >

Proactive Education

 As the new EMR is built out and implemented, train necessary staff on the new technology early.

Establish A Security Protocol

- Before starting the transition process, take potential security issues into consideration
- If a third-party vendor is helping to handle the transition, consider their certifications
 - SOC 2 + HITRUST is the highest tier of

cybersecurity available. Organizations with this distinction demonstrate the ability to fully protect patient and other sensitive, personally identifiable information in accordance with HIPAA

Gradient Roll-out Plan

- For multi-site systems, consider a tiered rollout plan based on the capabilities of each site, region, facility, etc.
 - Take into consideration measures for sites that will transition into the new EMR system slower than other sites

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 Potential reasons some sites may transition slower: site size, bandwidth of staff, age of previous EMR technology, technology literacy of site, region, etc.

Proactive Testing

- Test and retest file transfers
 - A common oversight in EMR transitions is assuming that a file from the old EMR will transfer easily into the new EMR
 - Files that do not transfer into the new EMR will have to be reformatted or adjusted before the transition is complete to maximize workflow efficiency

Proactive Feedback

- Ask clinical teams what fields or tabs might benefit their workflow
- Map required workflows and respective EMR involvement
 - Learn and reverse-engineer order sets to accommodate a seamless workflow

Reincorporate What Works

 Request forms from previous implementations that have resulted in positive outcomes

Goals >

Smooth and seamless transition

 Despite different site capabilities, the overall transition into a new EMR will be timely, relatively free of complication during the rollout itself, and will be done with cybersecurity in mind

Improved financial efficiency

 Upfront costs may be large, but improved clinical documentation means optimized billings and collections in the long term

Workflow efficiency

 Proactive staff education means shorter downtime and learning curves with the new EMR

- Clinical feedback on preferred record or data locations, fields or tabs help with workflow and concurrent review
- Well templated forms with previously tested optimal outcomes reduces upfront work and ensures continued positive outcomes

Continued Innovation

 Continued partnership with outside experts and internal analysis prompt continuous opportunities to improve, upgrade, and innovate

Conclusion

New EMR platforms, upgrades, and transitions present a host of potential benefits for hospital systems. This is representative of the trend within hospital systems for technology innovation to improve long-term financial health, patient care quality, and workflow efficiency. Similar to most changes, EMR transitions and upgrades can be complex, hampered by inexperience and capacity issues. Further considerations such as staff affinity for the new technology and cybersecurity are often overlooked and can cause unforeseen inefficiencies. Hospital systems that proactively tackle staff education, multisite rollouts, and potential partnerships can expect a smooth and relatively seamless transition with little downtime to a new or upgraded EMR. The incorporation of feedback on fields, location of documentation and optimize the experience and provide benefits for concurrent review. With EMR investment projected to increase in the next five years, it is imperative that hospital systems proactively incorporate best practices in order to ensure their expected return on investment.

About Q-Centrix

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