Creation of a Novel EHR Provider Utilization Dashboard to Drive Process Improvement and Enhance Provider Well Being

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Background

- Excessive time spent on EHR tasks, inefficient workflows and underutilization of available resources has been associated with physician burnout, decreased quality of patient care, and lower job satisfaction.
- Various EHR usage metrics have been linked to provider burnout and job dissatisfaction rates. Institutions should conduct enterprise-wide reviews and track this data to understand the burdens and benefits of EHR usage and monitor changes over time.
- Cerner Advance (CA) and Lights On Network (LON) metrics offer enterprise-level end-user data analytics for our EHR.
- Limitations exist with both applications prompting our Information Services team to create a dashboard that would meet our unique institutional needs with two displays: Executive and division leadership view, and medical staff view.

Objective

Implement a dynamic EHR utilization dashboard for providers using HealtheIntent and Tableau Analytics to monitor and address physician burnout, improve patient care quality, and enhance job satisfaction by leveraging advanced analytics tools.

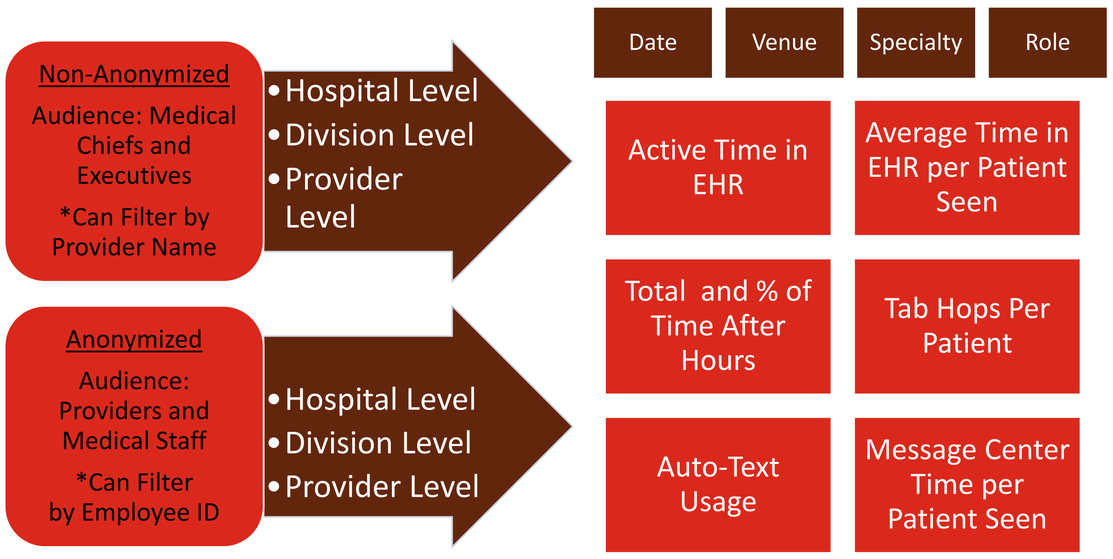


Figure 1: Two Dashboard Approach

Methods

- Dashboard metrics were narrowed to the **top 10 metrics** correlated with physician well-being and burnout.
- Metrics data extract files are pulled monthly from CA/LON, uploaded to HealtheIntent, and incorporated into a Tableau dashboard for visualization.
- Dashboard calculations for each metric are broken down into numerator and denominator and then reconstructed to ensure transparency and normalization.
- Visualization:
  - **Hospital Level:** Metrics are aggregated to include all divisions. This provides a comprehensive view of EHR utilization across the organization within a specific time frame. (**Figure 2**)
  - **Division Level:** Metrics are aggregated at the division level and trended over time. The data represents the sum of all EHR interactions across clinicians in the division, showing overall EHR utilization within a division. (**Figure 3**)
  - **Individual Level:** Metrics show each clinician's data trended over time and can be analyzed across peer groups.(**Figure 4**)
- Using Tableau Analytics, divisions were validated/renamed/regrouped as dictated by CNH division naming convention.

Results

Figure 2: Hospital Level View Showing Active Time in EHR per Provider Within a Period of Time

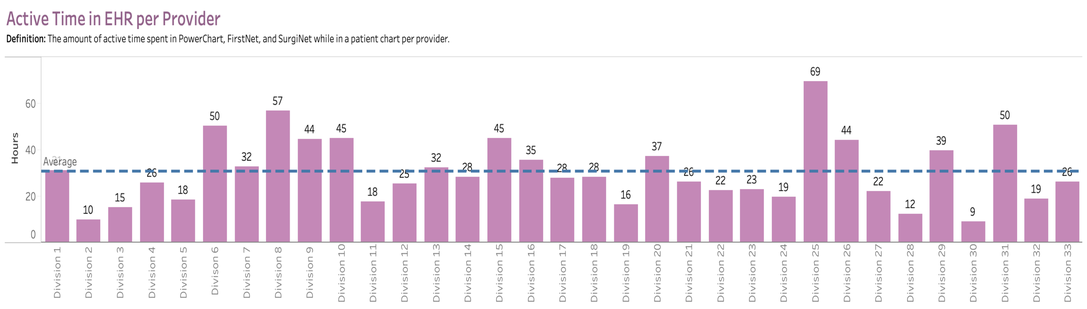


Figure 3: Division Level View Showing Active Time in EHR per Provider Over Time

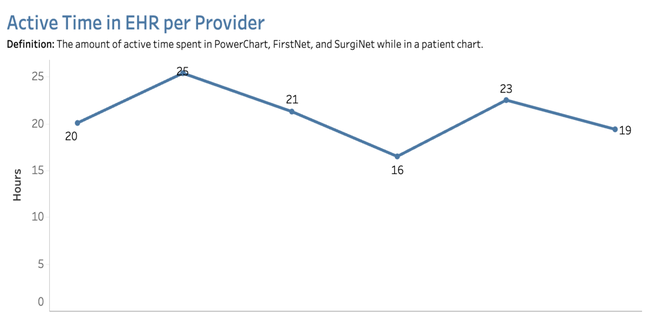
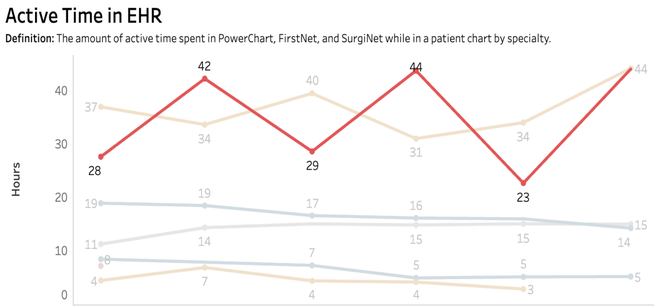


Figure 4: Individual Level View Showing Active Time in EHR Over Time



User Data Since Go-Live July 2025

Since implementation in July 2025:

- 26 users have accessed the executive view, with 12 users accessing the tool at least 3 times.
- 156 users have accessed the medical staff view, with 30 users accessing the tool at least 3 times.

Conclusion

- The anonymized and non-anonymized dashboards allow for dynamic filtering and highlighting of EHR metrics to foster transparency across the organization and will allow providers to track utilization and efficiency improvements through projects.
- Medical staff have access to the anonymized dashboard, while division chiefs have access to non-anonymized data.
- Since implementation, users are repeatedly using the dashboard based on data review, showing early signs of successful adoption
- The dashboards will support quality initiatives, provide trending data, assist in management of EHR policies, and create a stronger foundation for best practices.
- Future work includes expanding data and access to nursing and ancillary staff and investigating division or executive based model use cases of dashboard-grounded process or quality improvements.