

First Case On Time Starts (FCOTS) Improvement Initiative

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Background

FCOTS is an operational metric that Advocate Health measures to optimize efficiency in perioperative services, targeting 80% on time. An “on time” first case (9am or earlier) is defined and measured as the time when a patient is wheeled into the operating room no later than 1 minute after the scheduled start time.

The Operating Room is estimated to account for 70% of hospital revenues and 40% of hospital costs (Hicks et al., 2020). Starting the first case late may lead to a domino effect, causing subsequent cases to be delayed, reducing OR utilization, increasing costs, reduced revenue, and potentially leading to physician, patient, family, and staff dissatisfaction. On time starts minimize wait times for patients, which leads to higher levels of satisfaction.

Local Problem

Prior to the pandemic, ACMC FCOTS was at 75%. FCOTS was reintroduced in September of 2022, with a year-to-date on time rate of 45%. Factors contributing to FCOTS delays include, but are not limited to:

- Surgeon Related: Late arrival, incomplete history and physical, add-on block.
- Pre-Operative Delays: Patient preparation delays.
- OR Suite Related: Missing equipment, missing supplies, instruments, or implants, contaminated tray, equipment malfunction.
- Anesthesia Related: Late arrival, multiple assignments

Methods

- Intervention: In September 2022, education to teammates and physicians regarding FCOTS expectations, delay definitions, and documentation.
- Methods of Evaluation: In October 2022, initiated a daily multidisciplinary huddle to drilldown and review Main Hospital and Outpatient Pavilion delayed first cases.

- The team identifies and classifies the primary delay reason, which is used for metrics and trending to identify areas of opportunity. Additional daily activities include:
 - Dashboard summary of first cases - % on time, case volume, current to prior week comparison
 - Perfect Serve message to late providers with 3 tiers of action based on # of occurrences.
- Analysis:
 - Weekly- Metrics include FCOTS % and case volume, delay summary by primary delay reason, current to prior week comparison. Shared with leadership and frontline teams in department communications
 - Biweekly- Leadership action planning meetings to identify countermeasures for delay trends, discuss execution of plans and status updates
 - Monthly- Summary of above with additional metrics shared with leadership and frontline teams in department communications

Results

FCOTS have improved in both the ACMC Main Hospital and Outpatient Pavilion locations. From 2021 to 2024, FCOTS rates increased by over 20% in both the Main Hospital and the Outpatient Pavilion (Figure 1 and Figure 2).

- Main Hospital FCOTS increased from **44%** to **67%**
- Outpatient Pavilion FCOTS increased from **45%** to **70%**
- Total delay minutes reduced from 2021-2024
 - Outpatient Pavilion: 7,166 minutes
 - Main Hospital: 16,771 minutes
- Incidentally, improvement is also noted in *All Case On Time Starts* since FCOTS program was initiated (Figure 3).

| ACMC First Case On Time Starts (FCOTS) by Year | | | | | | | | |
|--|------|------|------|------|------|------|------|-------------------------|
| % On Time | 2017 | 2018 | 2019 | 2021 | 2022 | 2023 | 2024 | Comparison 2024 to 2021 |
| Main Hospital | 65% | 62% | 60% | 44% | 46% | 66% | 67% | +23 ▲ |
| Outpatient Pavilion | 64% | 67% | 62% | 45% | 44% | 68% | 70% | +25 ▲ |

Figure 1. Comparing 2021 to 2024, % *First Case On Time Starts* increased in both the Main Hospital and Outpatient Pavilion. Pre-pandemic data included for reference. (Sources: Epic SYS OR Trending Dashboard and Cerner historical data).

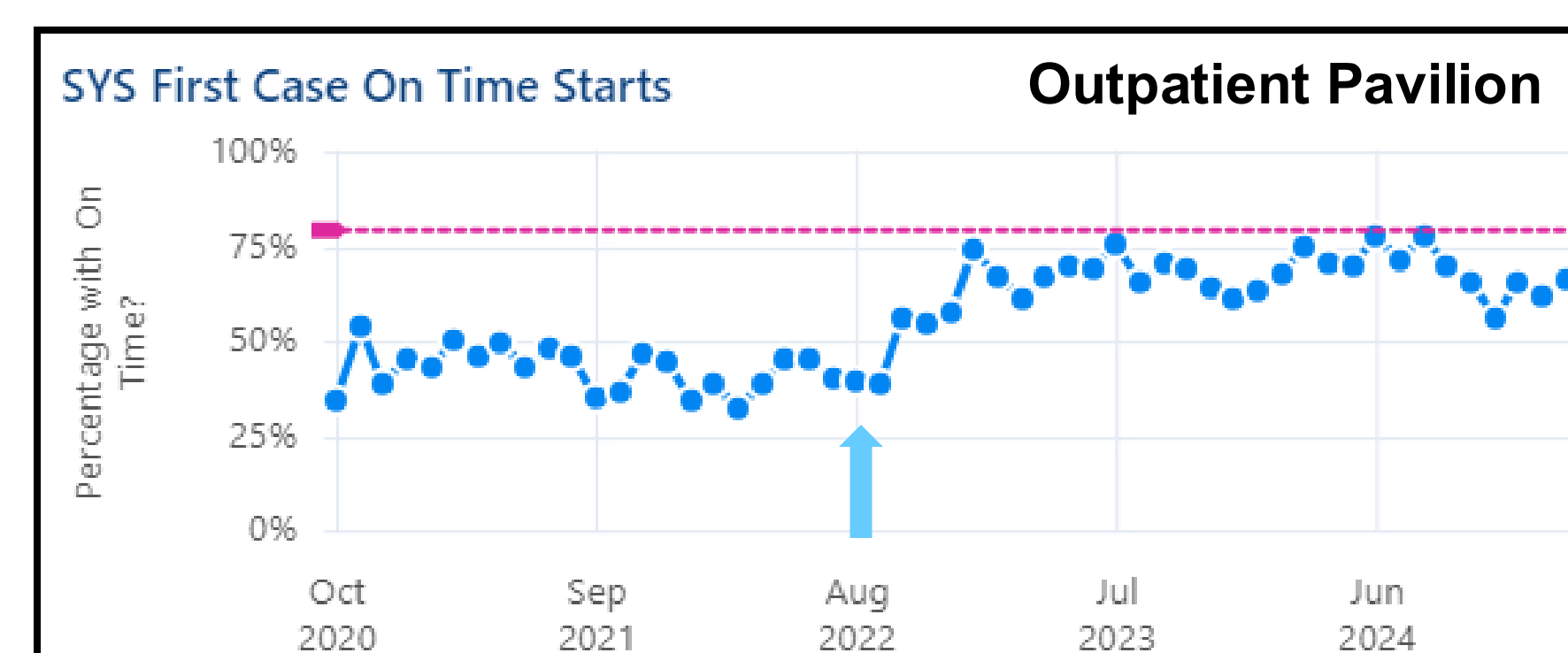
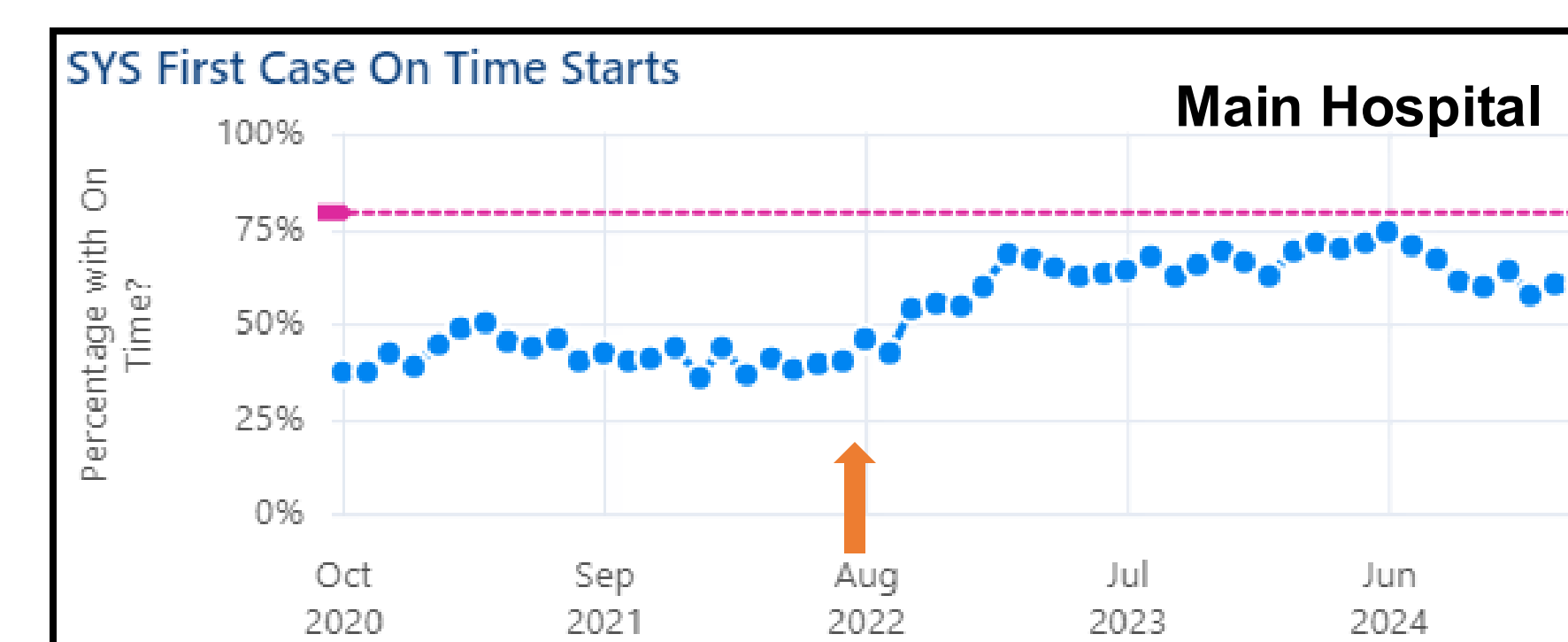


Figure 2. *First Case On Time Starts* increased since inception of the FCOTS program in October 2022 (Source: Epic SYS OR Trending Dashboard).

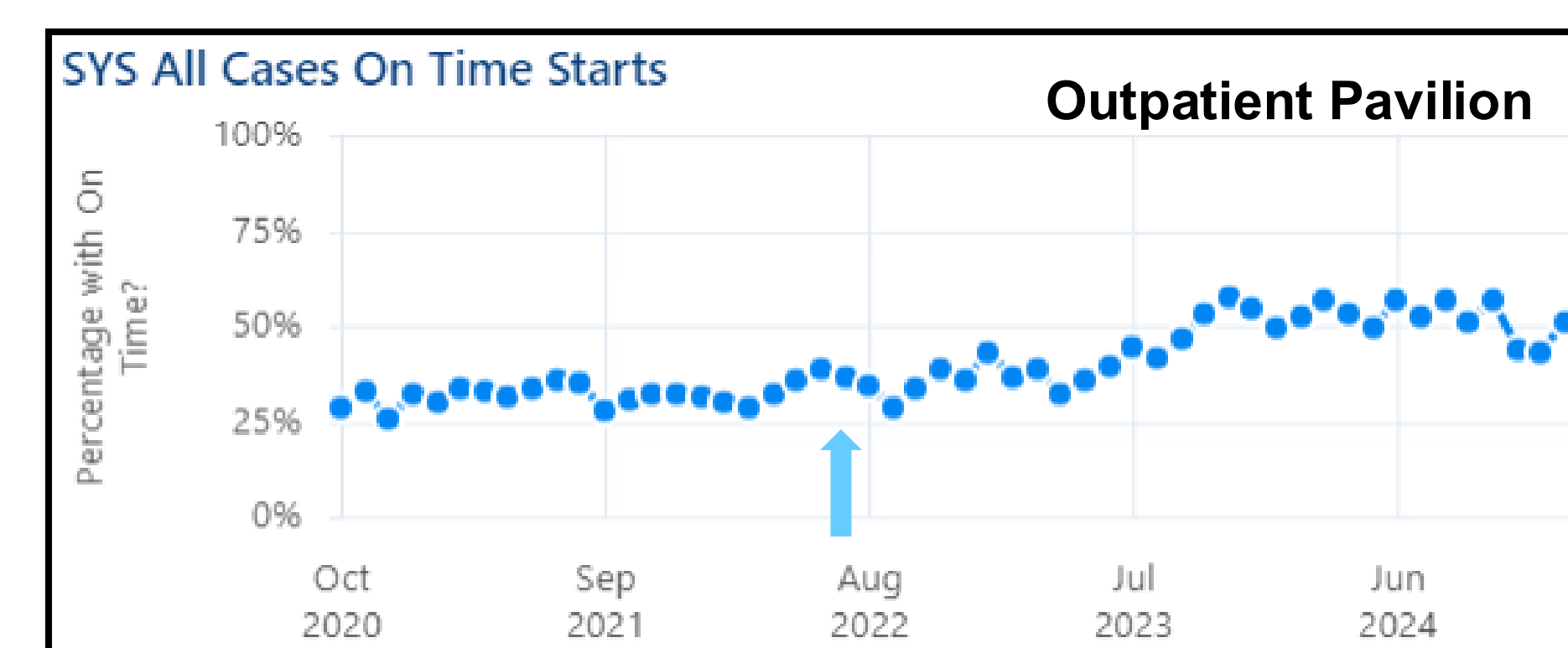
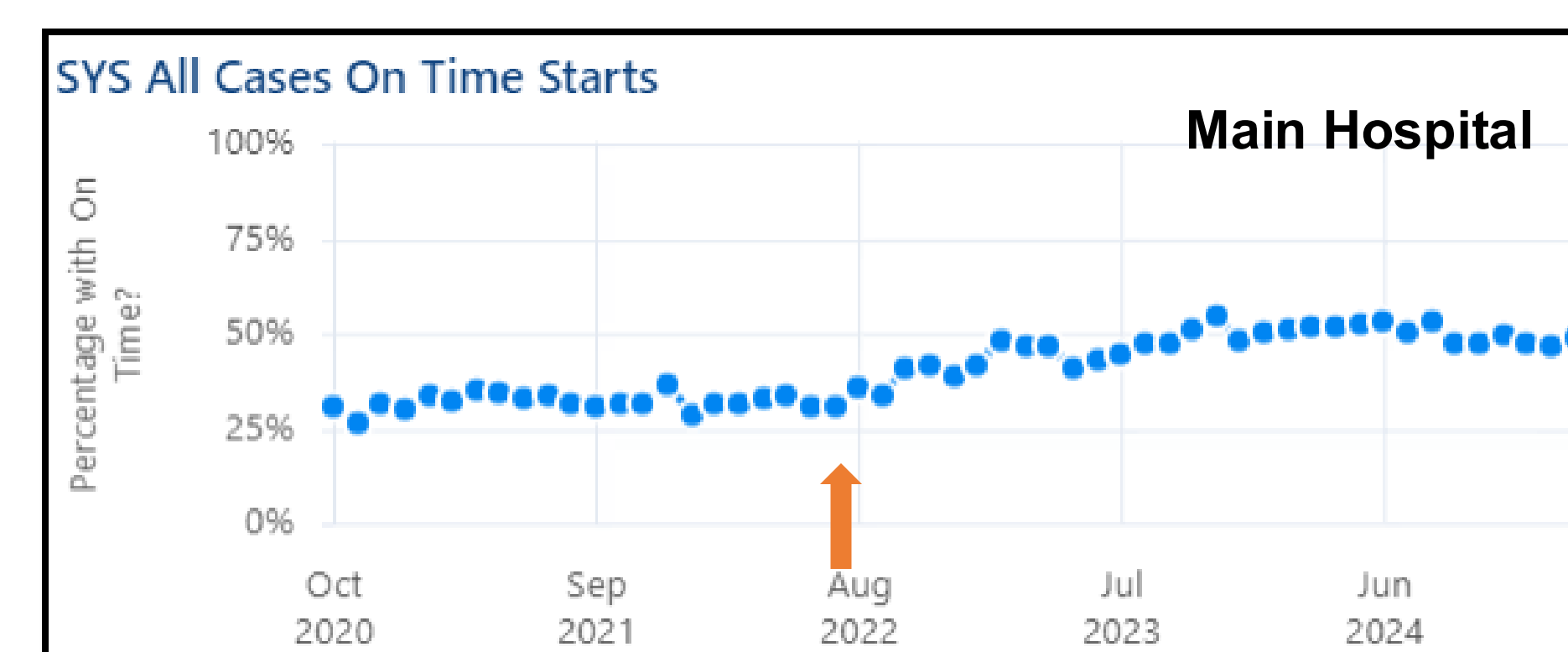


Figure 3. Upward trend in *All Cases On Time Starts* since inception of the FCOTS program in October 2022 (Source: Epic SYS OR Trending Dashboard).

Discussion

Cost reduction is estimated based on study completed at a comparable sized medical center with an 'idle time' cost of \$8.24/minute (Hicks et al., 2020)

- 2021: Estimated cost \$375,711.04 in delay time
- 2024: Estimated cost \$178,470.16 in delay time

Conclusion

Overall, FCOTS between both ACMC Main Hospital and Outpatient Pavilion have improved in large part due to the reactivation of the FCOTS committee, with potential cost savings of 47.5%

Implications for Practice

- Cost reduction through increased efficiency and utilization of OR resources
- Education to floor about importance of completing preop checklist ensuring all tasks complete prior to start time
- FCOTS is applicable to outpatient settings as well as GI Lab, Cath Lab, Imaging Center
- Continue data collection and drilldown to determine cost analysis and patient satisfaction
- Continue quality improvement projects such as turnover rates

References

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