

No Place Like Home: Discharge Timing and Costs Following Pediatric Gastrostomy Tube Placement in the United States



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Background

Same-day discharge (SDD) after elective pediatric gastrostomy tube placement is **safe** in selected patients, but national **adoption, cost implications, and hospital-level variation remain poorly characterized**¹

Objective

Evaluate the association between SDD and adjusted hospital costs, and describe temporal trends and hospital-level variation in SDD use

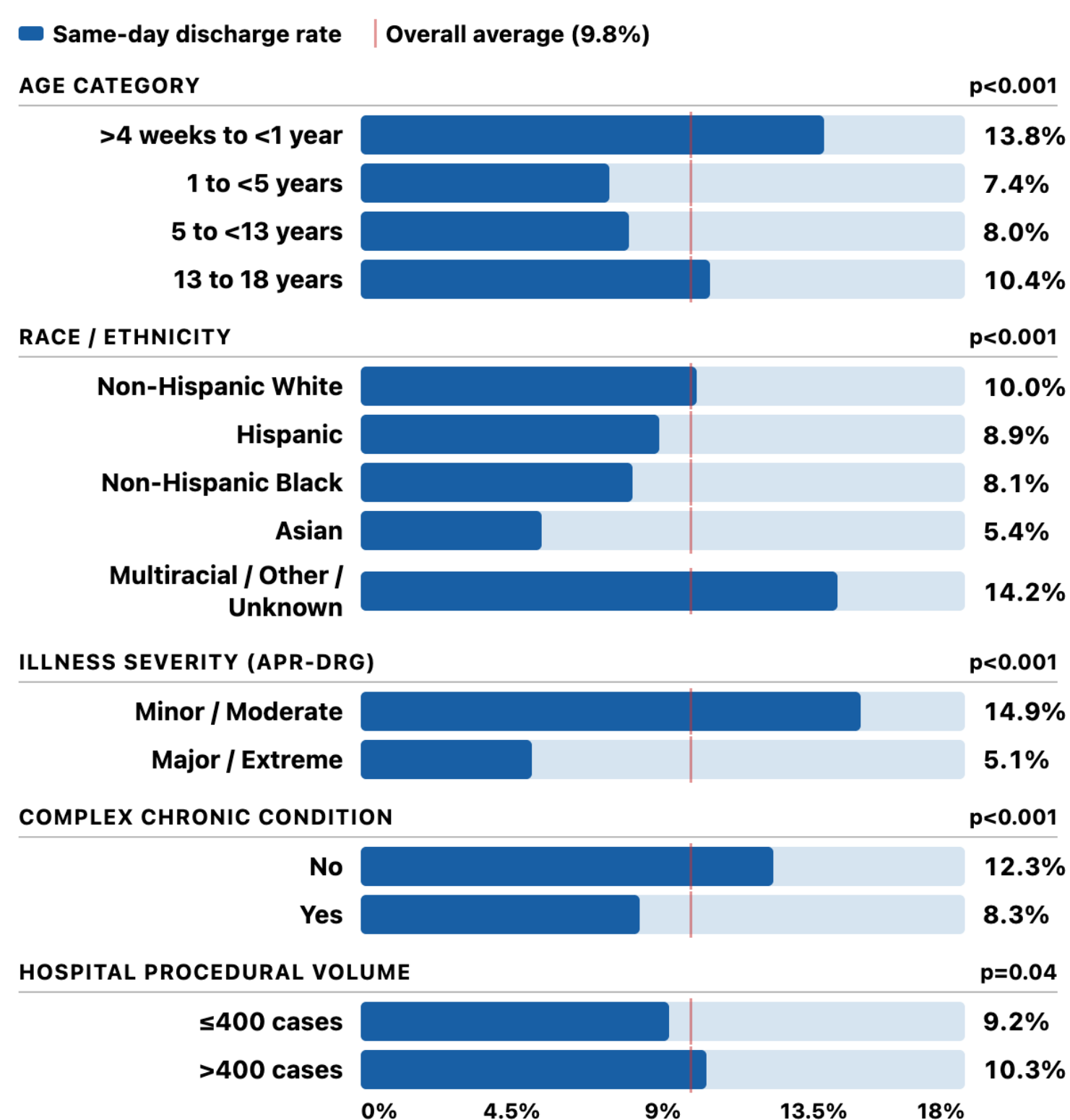
Methods

- Retrospective cohort study of children undergoing elective gastrostomy tube placement (2016 – 2025) using the Pediatric Health Information System database
- Excluded: age <4 weeks, additional procedures, discharge on POD ≥3, and hospitals with <10 cases
- Discharge was dichotomized as SDD or POD 1 or 2

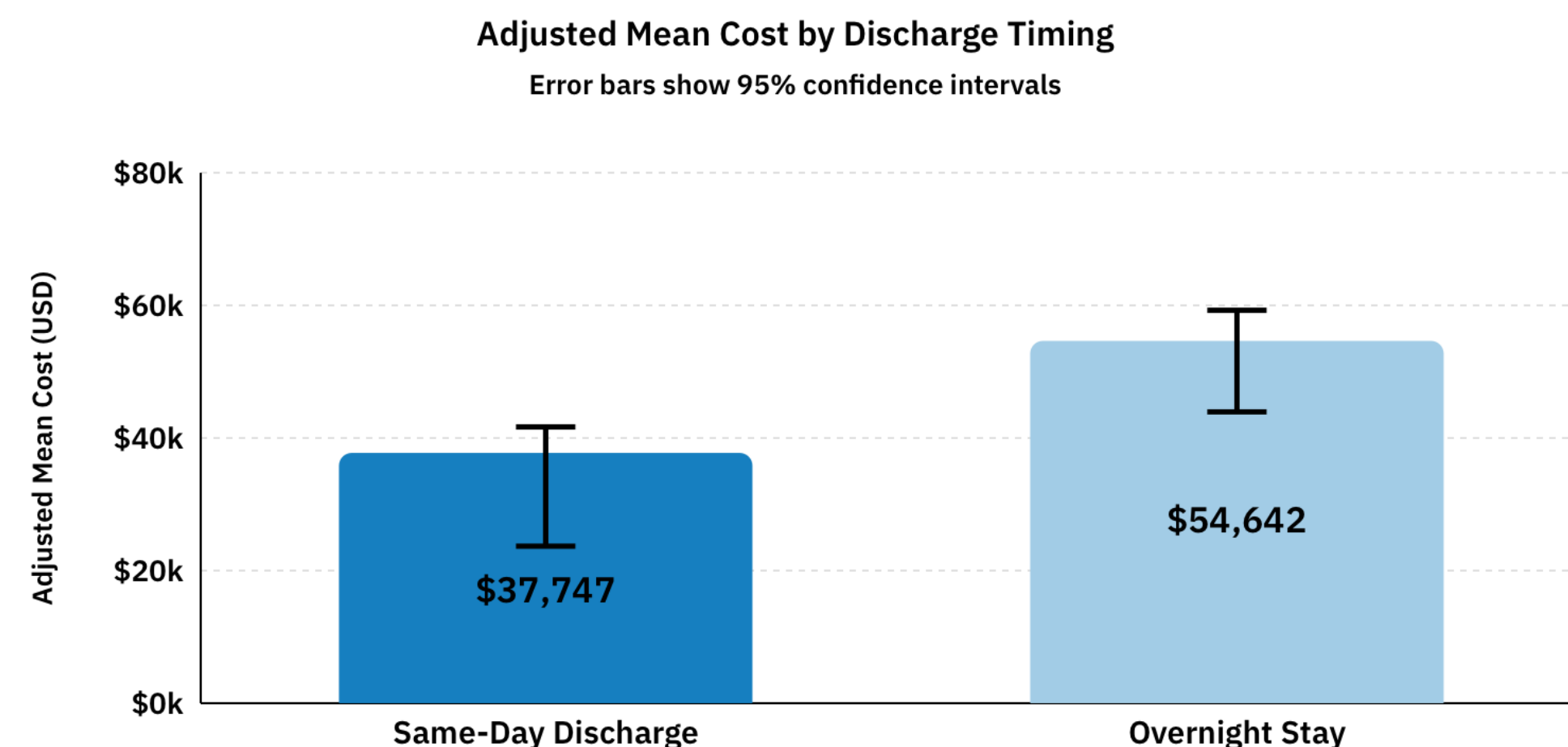
Results

Total patients **11,818** | Same-day discharge **1,155 (9.8%)** | Postop day 1 or 2 **10,663 (90.2%)**

SAME-DAY DISCHARGE RATE BY PATIENT AND HOSPITAL CHARACTERISTICS



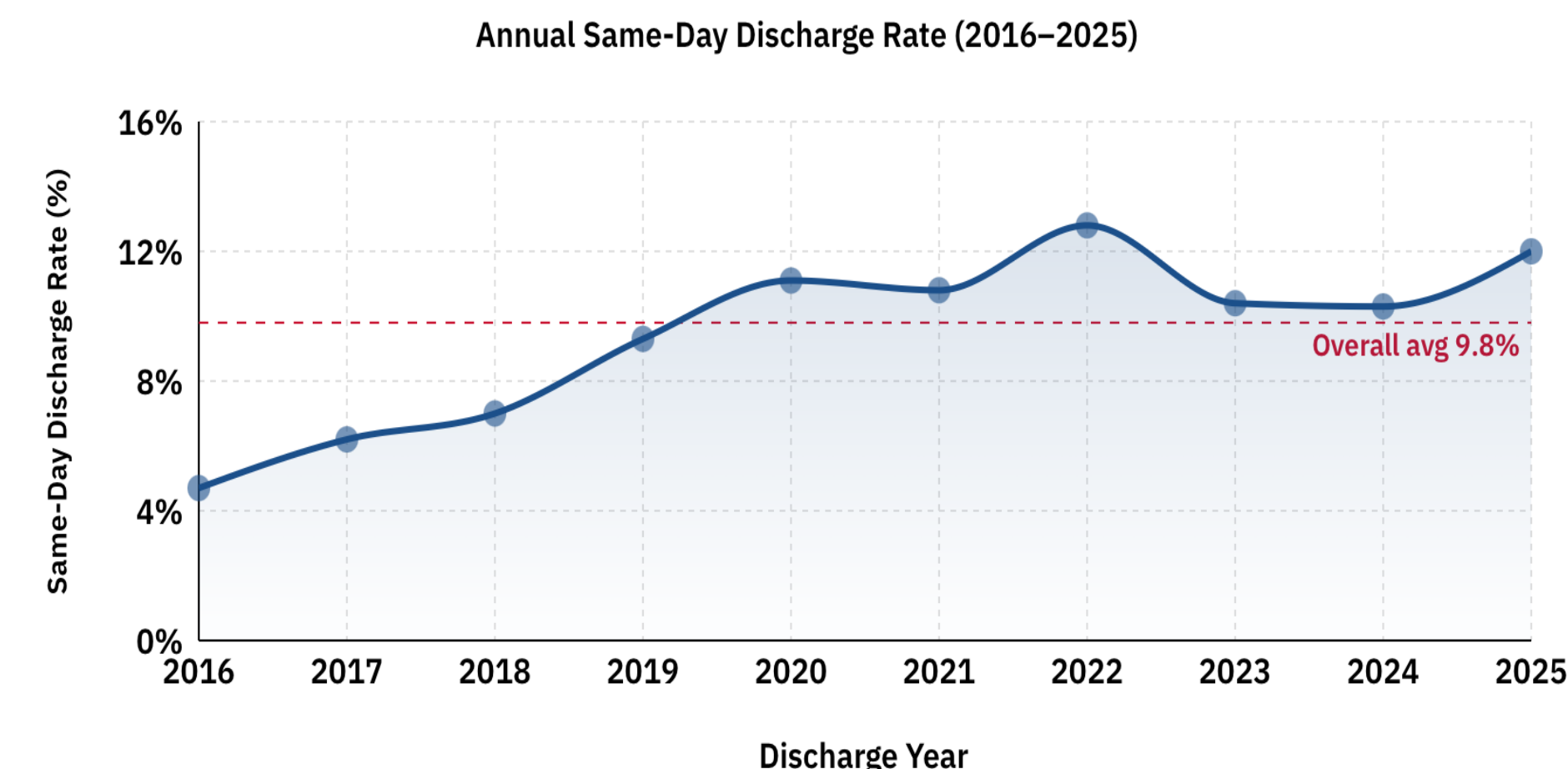
Adjusted Cost



Costs inflation-adjusted to 2024 US dollars. Adjusted for age, sex, race/ethnicity, illness severity, complex chronic conditions, hospital volume, and year.

\$16,895 lower adjusted mean cost per encounter
Difference between adjusted mean costs: \$37,747 vs \$54,642 (p<0.001)

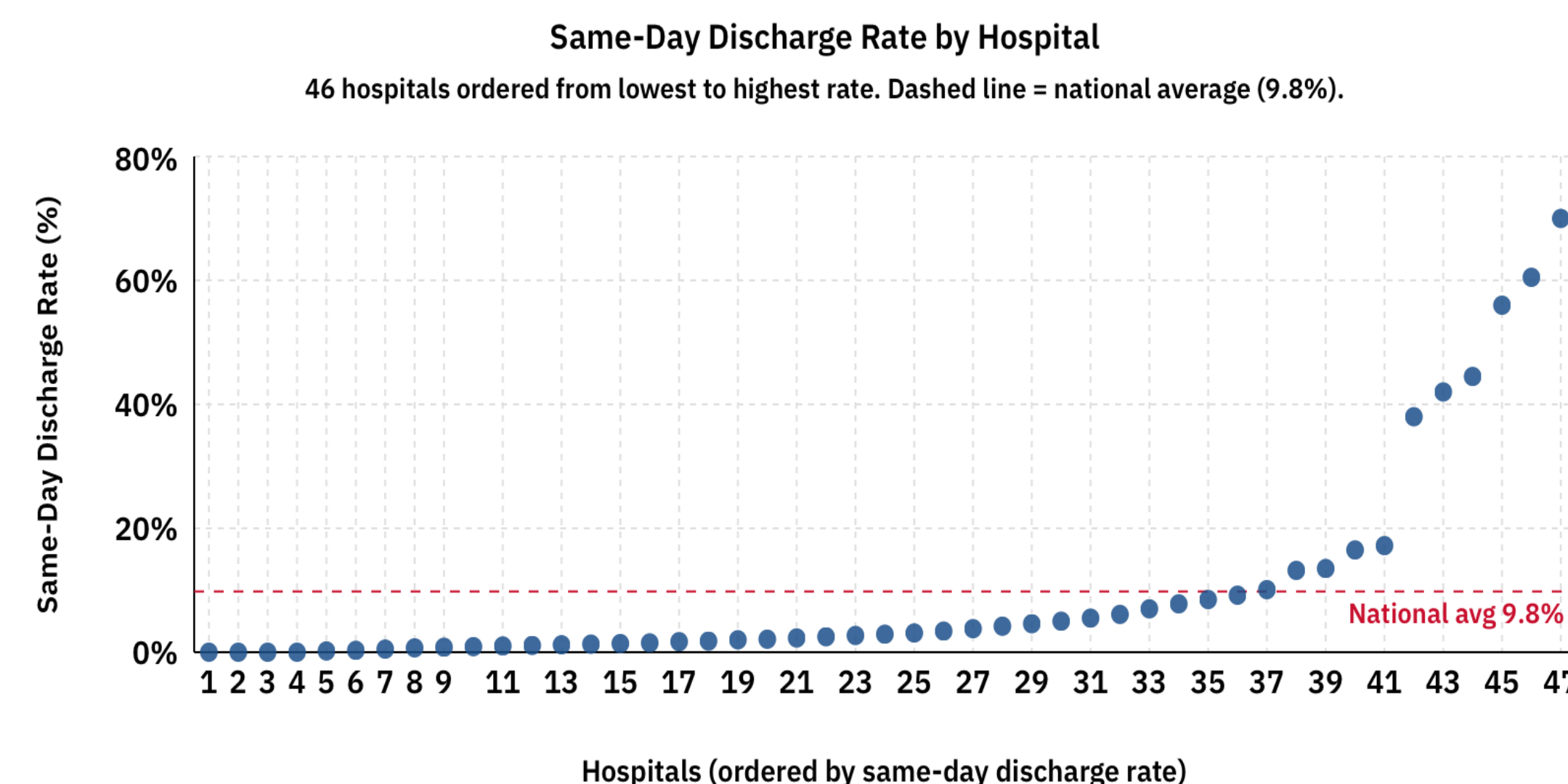
Temporal Trends



Each point = percentage of children discharged the same day as surgery that year.

Same-day discharge increased over time but remained low overall

Hospital-Level Variation



Most hospitals discharged few patients the same day, while a small number had markedly higher adoption
Five highest-volume hospitals accounted for 59% of all same-day discharges.

Conclusions

- Same-day discharge after pediatric gastrostomy tube placement is associated with markedly lower costs
- Adoption remains limited and highly variable across hospitals
- Variation not explained by differences in illness severity or medical complexity, suggesting discharge practices are largely determined by institutional care processes
- Expanding standardized perioperative pathways to facilitate SDD represents an opportunity to improve value in pediatric surgical care**

Limitations

- Observational design limits causal inference despite adjustment for measured confounders.
- Administrative data cannot capture protocol details, caregiver readiness, or granular selection criteria.

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