

# Distraction Free Hand-off in a Pediatric Intensive Care Unit

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## Problem

Adverse drug events continue to serve as serious threats to patient safety and are directly linked to distractions and interruptions

- \$3.5 billion healthcare dollars are spent annually in the United States as a result of over 450,000 preventable adverse drug events (ADEs)
- In a large academic PICU, there were 43 adverse drug events related to continuous medication infusions
- Investigations of events have been attributed to interruptions and distractions and lack of independent double checks performed by nursing

## Project Purpose and Goals

The purpose is to implement and evaluate a distraction free medication bundle to reduce interruptions during hand-off and medication administration and decrease the adverse drug event rate.

### Short Term Goals

- Nurses, providers, and customer service representatives will complete training on the distraction free medication bundle
- 100% of nurses will adhere to the medication bundle and distraction free designated time 0700-0730/1900-1930
- Distractions during handoff will decrease over the implementation period
- Adverse Drug Event Rate specifically related to continuous medication infusions will decrease over the implementation period

## Methods

Setting and Population: 24 bed Pediatric Intensive Care Unit in a large, urban academic center; All PICU patients

Data Collection:

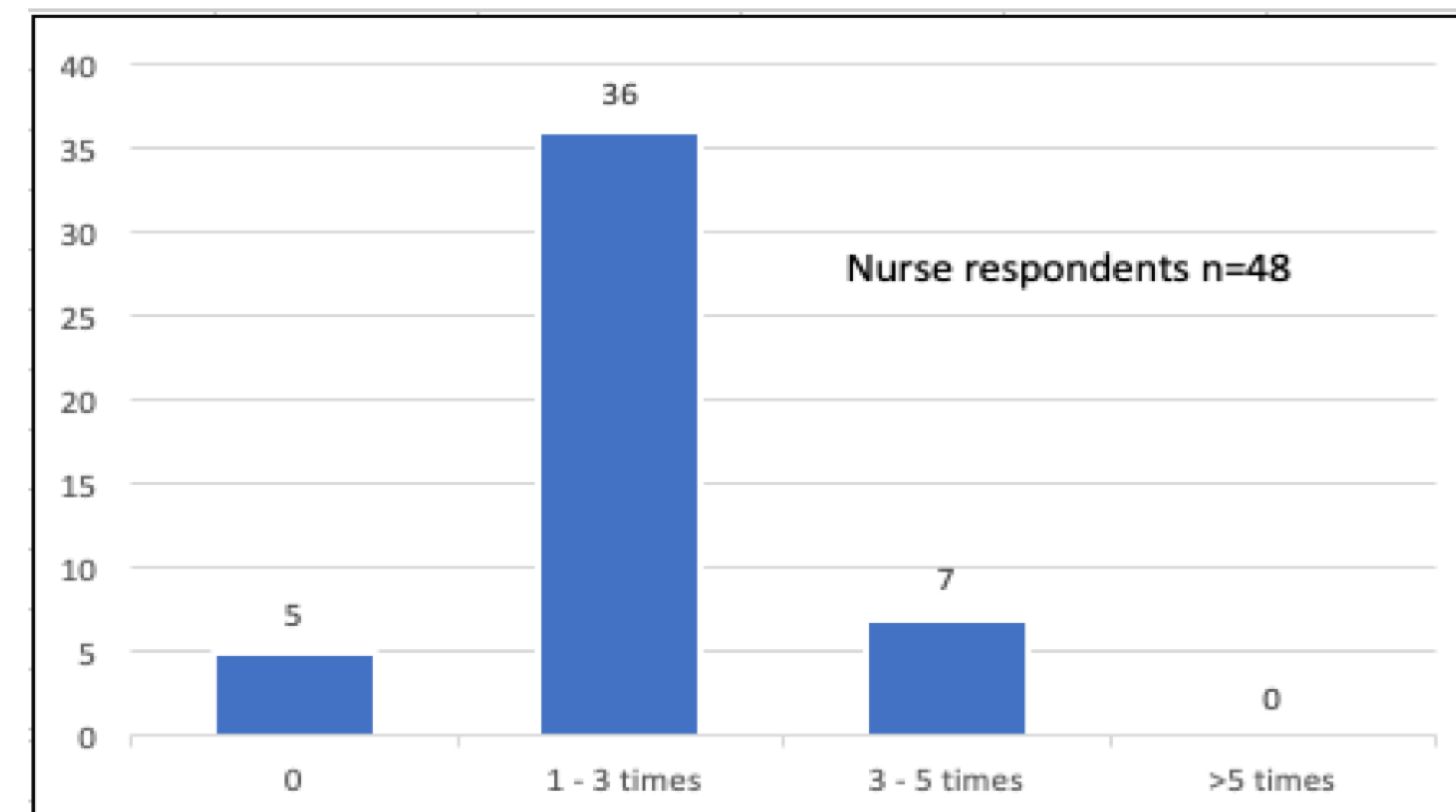
- Structured nursing observations during handoff
- Adverse Drug Events, level C and above (events that reach the patient) pertaining to continuous infusions were extracted from the online event reporting system

Intervention:

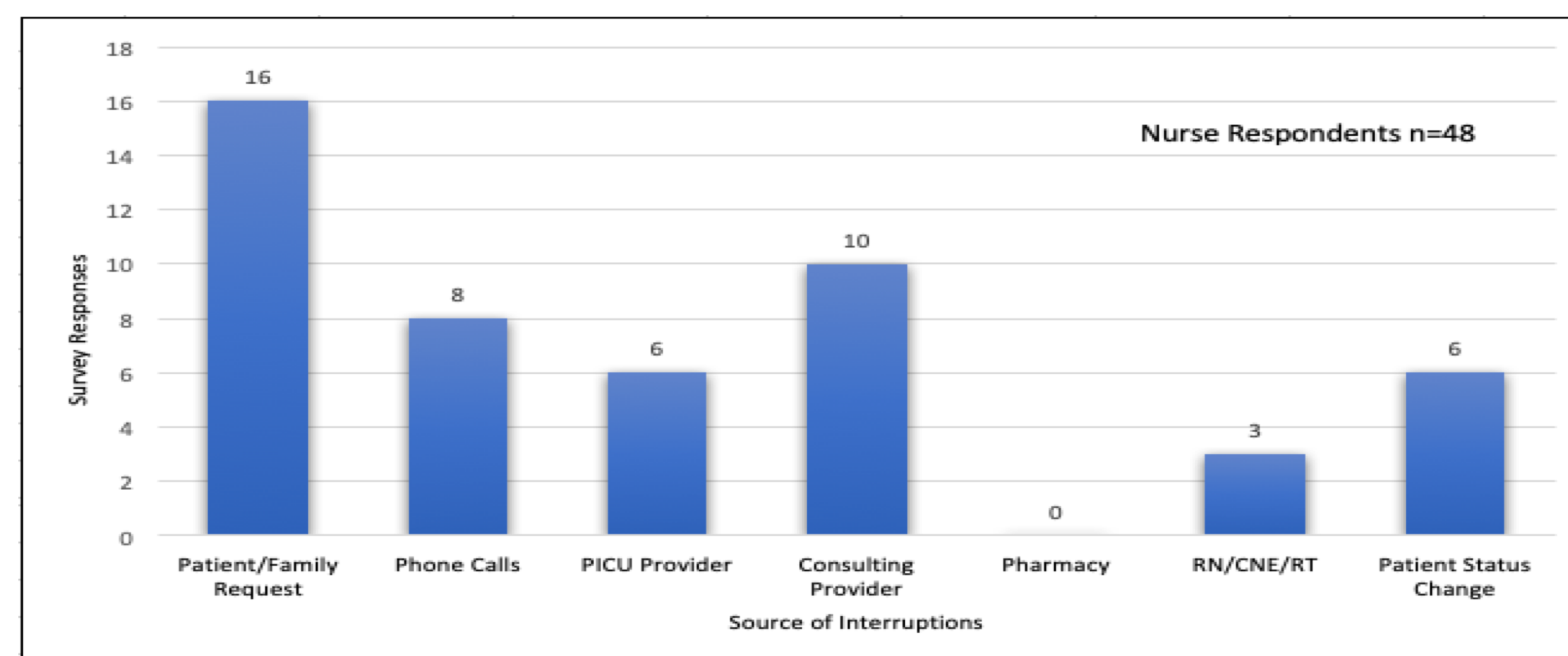
- Education to multi-disciplinary team, consulting services, patients and families
- Dedicated handoff time 0700-0730
- Independent nursing checks of all continuous infusions

## Results

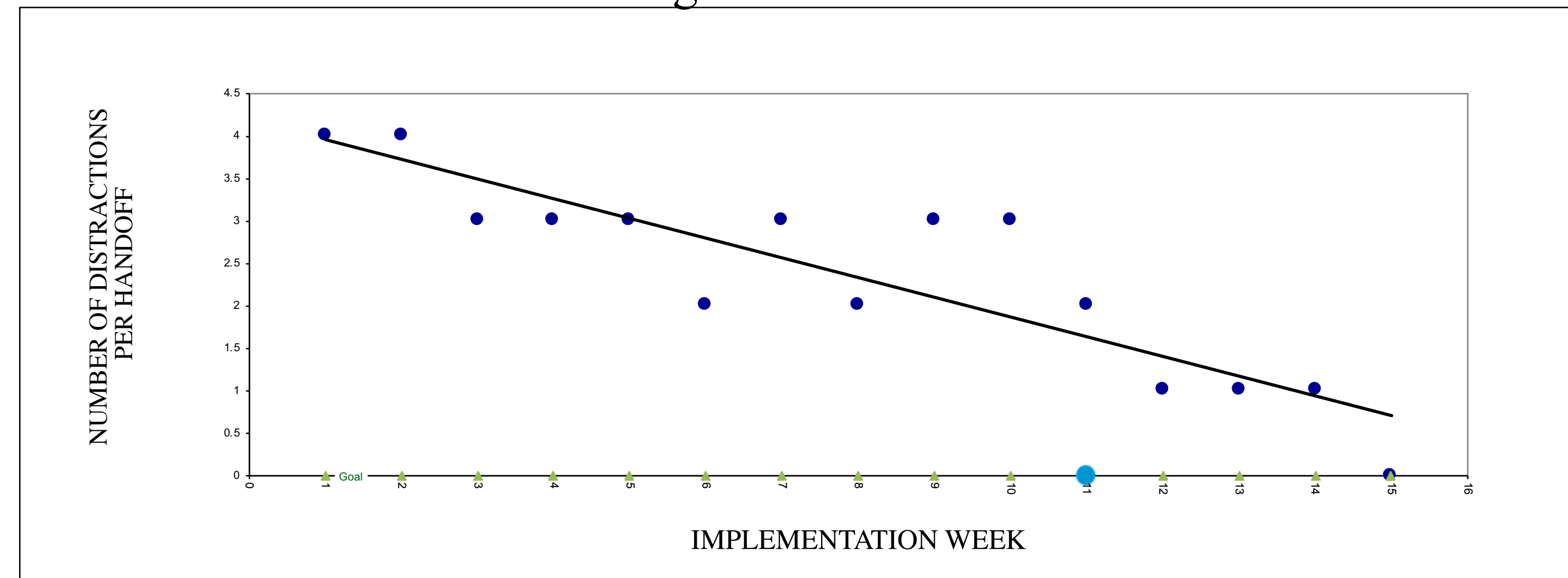
Pre-Implementation Survey Data – Number of Interruptions During Hand-off



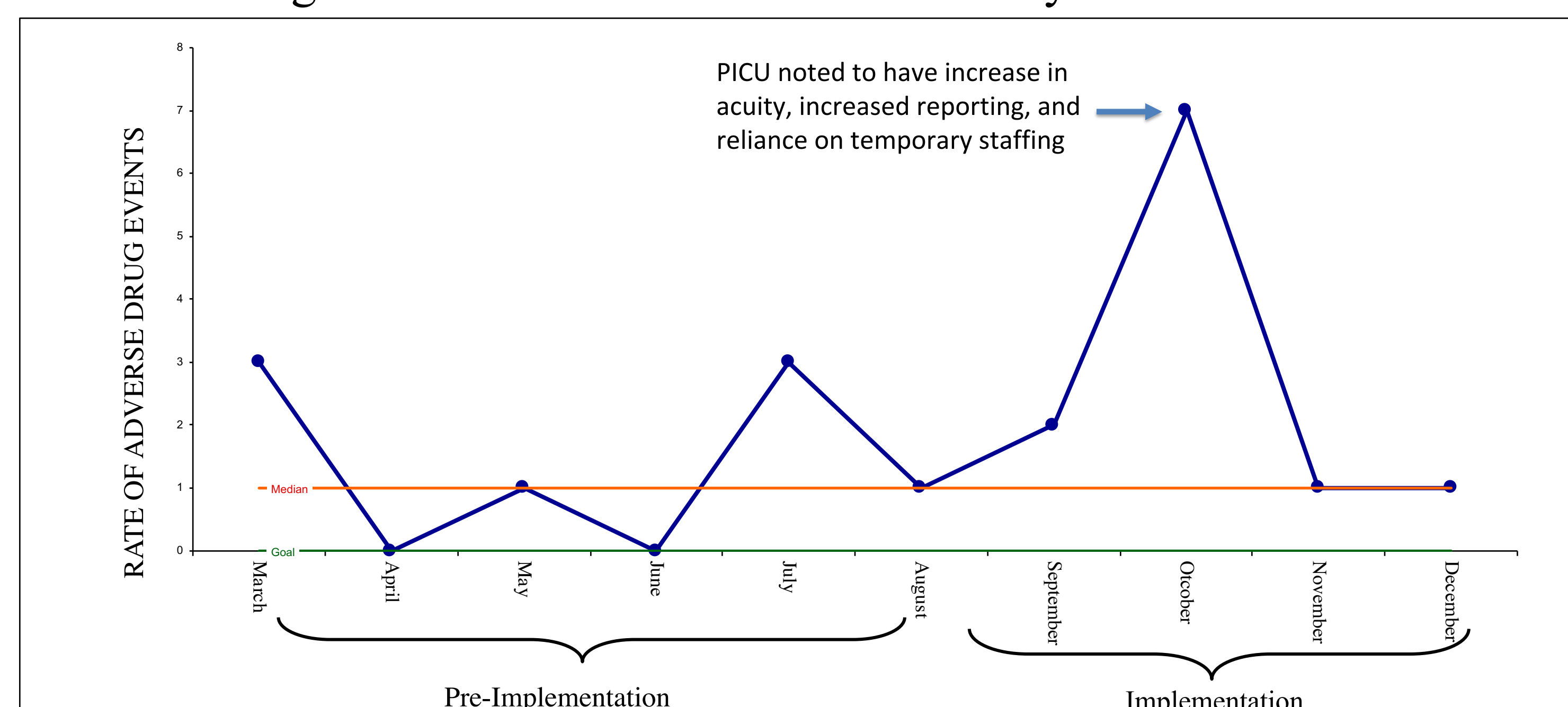
Pre-Implementation Survey Data – Most Common Sources of Interruptions



Incidence of Distractions During Structured Observations



Adverse Drug Events – Continuous Infusions Only



## Discussion & Limitations

The distraction free hand-off bundle proved effective in decreasing the incidence of distractions.

- More time needed to determine the impact of the distraction free bundle on decreasing adverse drug events
- It is important to note that the accuracy of the event rate is reliant on self reporting and may be ascribed to increased awareness of adverse drug events or perhaps an increased culture of safety.

### Facilitators:

- The distraction free hand-off occurred during standard nursing change of shift workflow
- Protected handoff time highly valued by nurses
- Increased transparency of adverse drug events highlights staff knowledge and acceptance of a culture of safety

### Barriers:

- Abnormally high nursing attrition rate in 2021
- High acuity time period during implementation

## Conclusion

The Distraction Free Medication Administration Bundle reduced the number of interruptions during handoff, changed the safety culture around nursing handoffs, and has the potential to decrease the adverse drug event rate.

- Provides nurses with designated distraction free time to provide a safe and effective hand-off and administer high-risk medications free from interruption.
- Highlights the necessity of reinforcement of education to increase staff compliance.
- More time is needed to prove significance of the impact that this bundle has on the unit's adverse drug event rate.
- The next cycle of the project will focus on all medications administered in the PICU to have a more holistic impact on the adverse drug event rate.

## References



## Acknowledgements

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