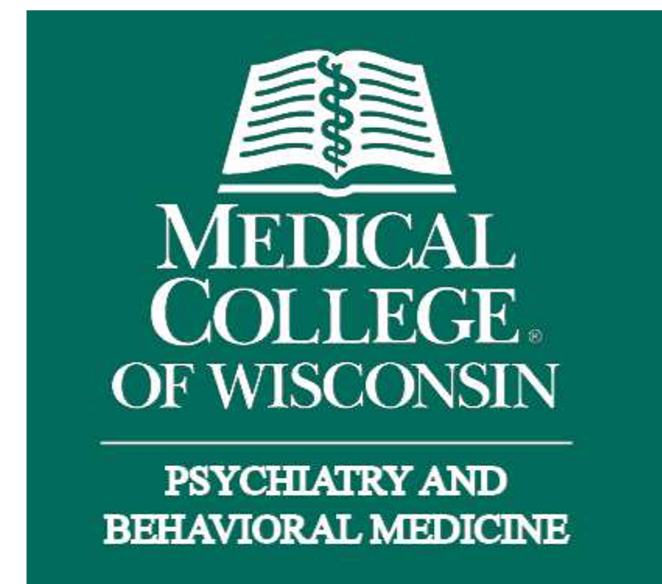# Collaborative Care in Acute Settings: An Integrated Approach to Psychiatric Care Within an Academic Emergency Department

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MEDICAL COLLEGE OF WISCONSIN — PSYCHIATRY AND BEHAVIORAL MEDICINE | MEDICAL COLLEGE OF WISCONSIN — EMERGENCY MEDICINE

Introduction

- The proportion of Emergency Department (ED) visits primarily involving psychiatric concerns has been **steadily rising**[1-2]
- 2010-2014 data from the National Emergency Department Sample identified mental health presentations (including substance use) as the **second-most frequent ED presentation**, with abdominal pain ranking as the most frequent[3]
- Challenges to caring for patients with primary psychiatric concerns in EDs include:
  - **Prolonged ED lengths of stay** (LOS)[4]
  - Resulting **boarding** and **overcrowding**[5]
  - Increased **restraint** use[6]
  - Negative **financial** impact[7]
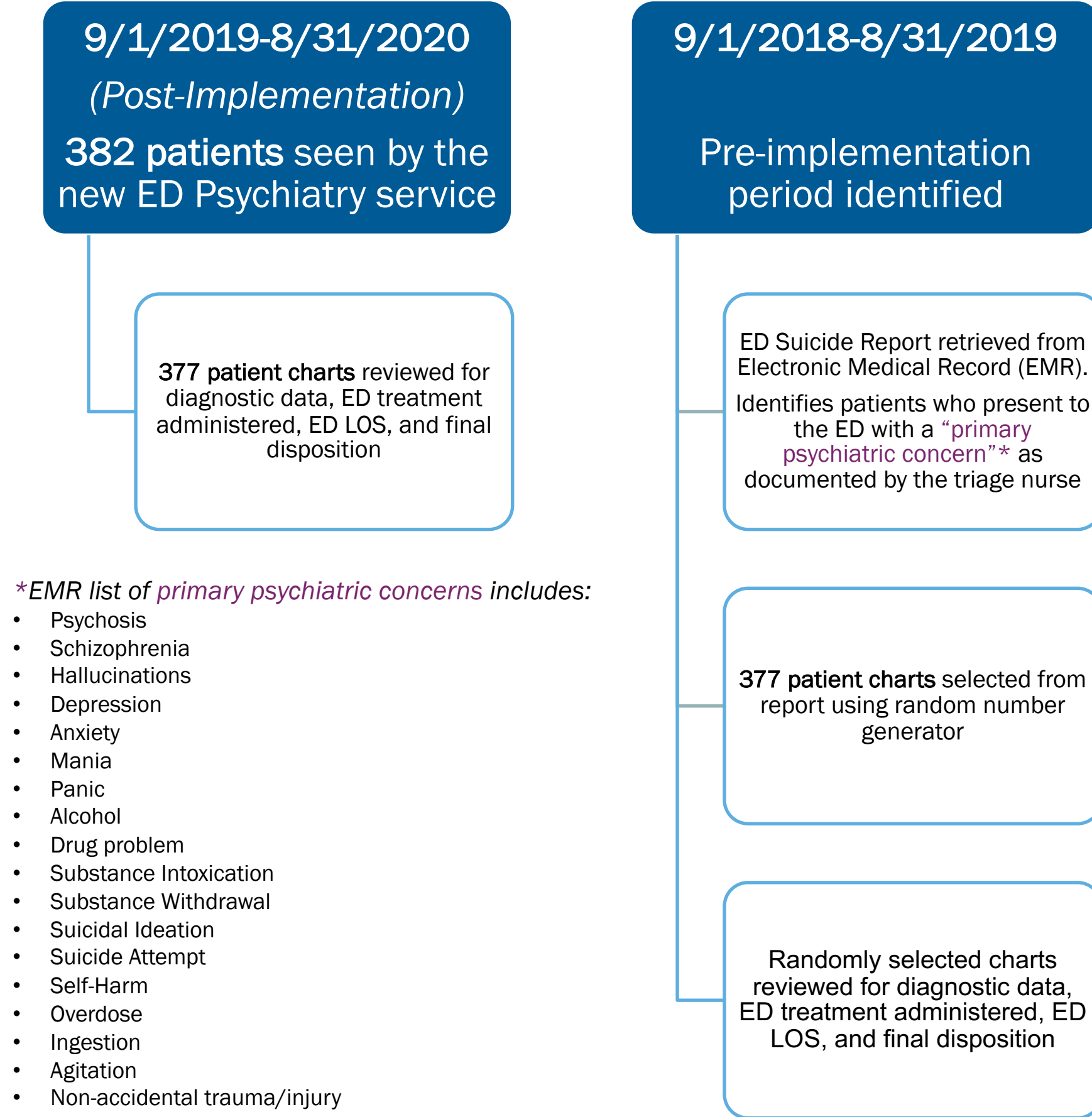 - **Safety** implications for patients and staff[5]

Unique and notable features of our innovative ED-based Psychiatry service line:

1) Joint administration by academic departments of Emergency Medicine and Psychiatry;

2) The medical and psychiatric evaluations of patients presenting to the ED with psychiatric concerns are conducted concurrently rather than consecutively for optimal efficiency and collaboration.

Many EDs have limited access to psychiatric expertise.

FULL ABSTRACT & REFERENCES

Methods

9/1/2019-8/31/2020 (Post-Implementation)
382 patients seen by the new ED Psychiatry service

377 patient charts reviewed for diagnostic data, ED treatment administered, ED LOS, and final disposition

*EMR list of *primary psychiatric concerns* includes:*
- Psychosis
- Schizophrenia
- Hallucinations
- Depression
- Anxiety
- Mania
- Panic
- Alcohol
- Drug problem
- Substance Intoxication
- Substance Withdrawal
- Suicidal Ideation
- Suicide Attempt
- Self-Harm
- Overdose
- Ingestion
- Agitation
- Non-accidental trauma/injury

9/1/2018-8/31/2019
Pre-implementation period identified

ED Suicide Report retrieved from Electronic Medical Record (EMR). Identifies patients who present to the ED with a *"primary psychiatric concern"** as documented by the triage nurse

377 patient charts selected from report using random number generator

Randomly selected charts reviewed for diagnostic data, ED treatment administered, ED LOS, and final disposition

Data from both groups compared using basic summary statistics.

Data for 12 months was analyzed in aggregate; data was also analyzed in two 6-month periods to account for COVID-19 as a possible confounder. 12-month data analysis presented on this poster.
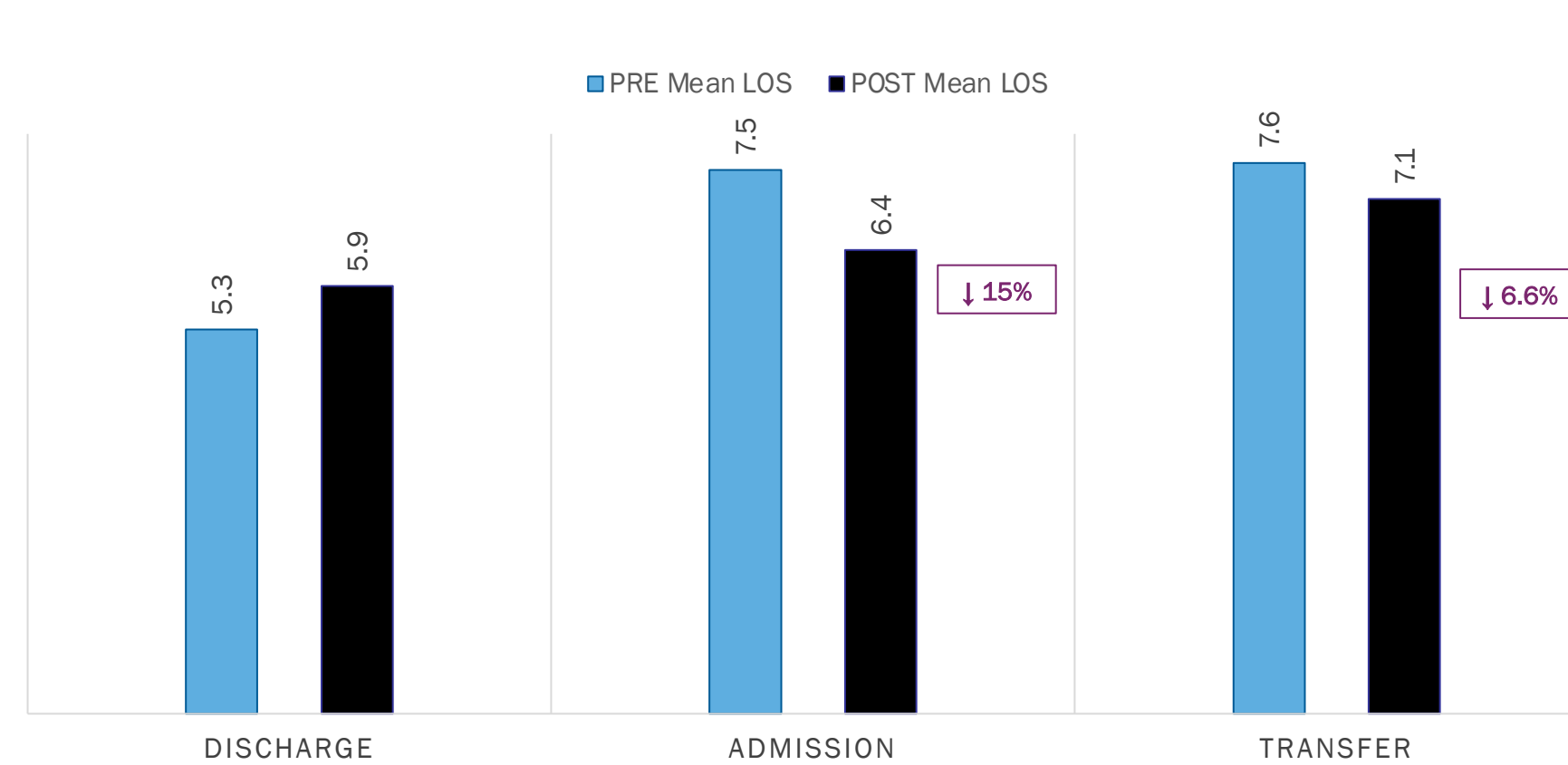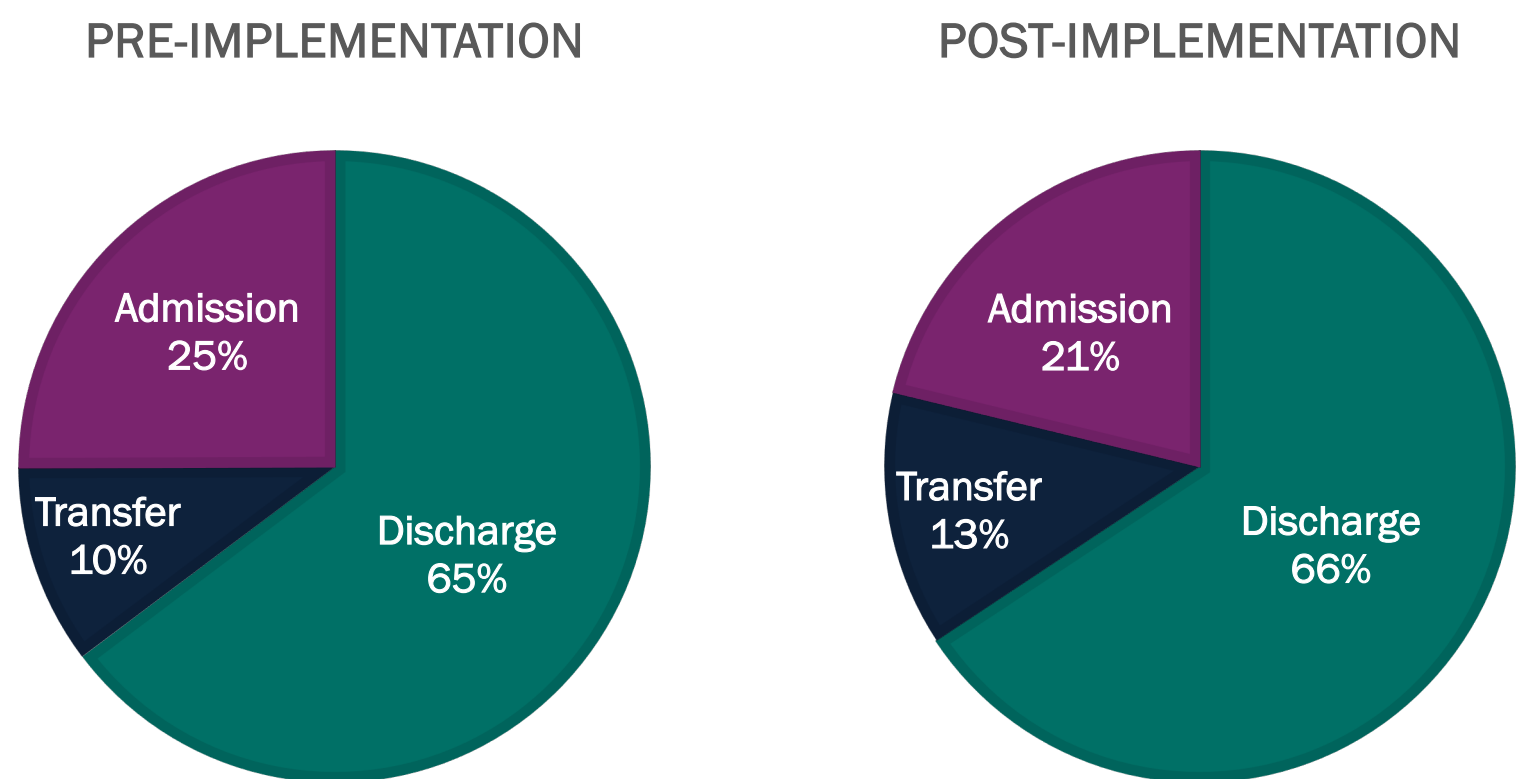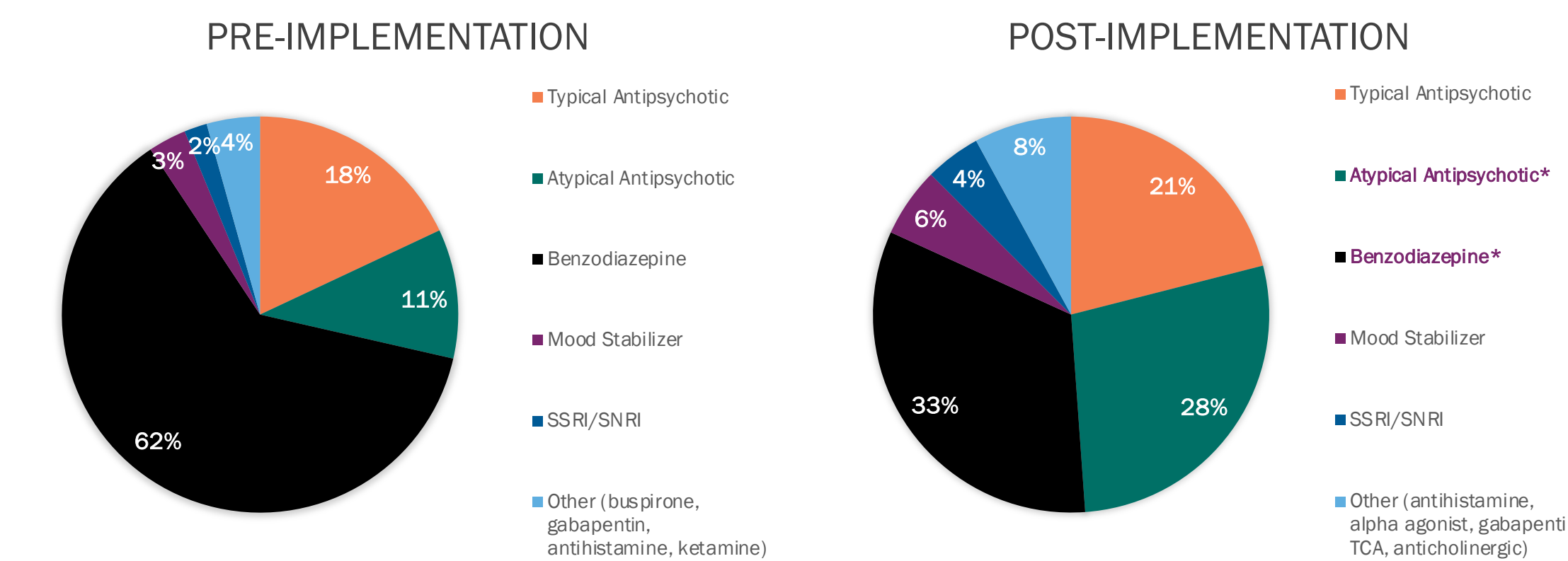
Results

Fig. 1. ED LOS (hours)
PRE Mean LOS / POST Mean LOS — DISCHARGE 5.3 / 5.9; ADMISSION 7.5 / 6.4 (↓15%); TRANSFER 7.6 / 7.1 (↓6.6%)

Fig. 2. Disposition*
PRE-IMPLEMENTATION: Admission 25%, Transfer 10%, Discharge 65%
POST-IMPLEMENTATION: Admission 21%, Transfer 13%, Discharge 66%

Fig. 3. Medication Classes (ED Rx)*
PRE-IMPLEMENTATION: 18%, 11%, 62%, 3%, 2%, 4% — Typical Antipsychotic, Atypical Antipsychotic, Benzodiazepine, Mood Stabilizer, SSRI/SNRI, Other (buspirone, gabapentin, antihistamine, ketamine)
POST-IMPLEMENTATION: 21%, 28%, 33%, 6%, 4%, 8% — Typical Antipsychotic, Atypical Antipsychotic*, Benzodiazepine*, Mood Stabilizer, SSRI/SNRI, Other (antihistamine, alpha agonist, gabapentin, TCA, anticholinergic)

Fig. 4. Treatment Provided
Pre-Implementation / Post-Implementation — Treated in ED 30.9% / 36.9%; Outpatient Script Given 3.2% / 16.7%
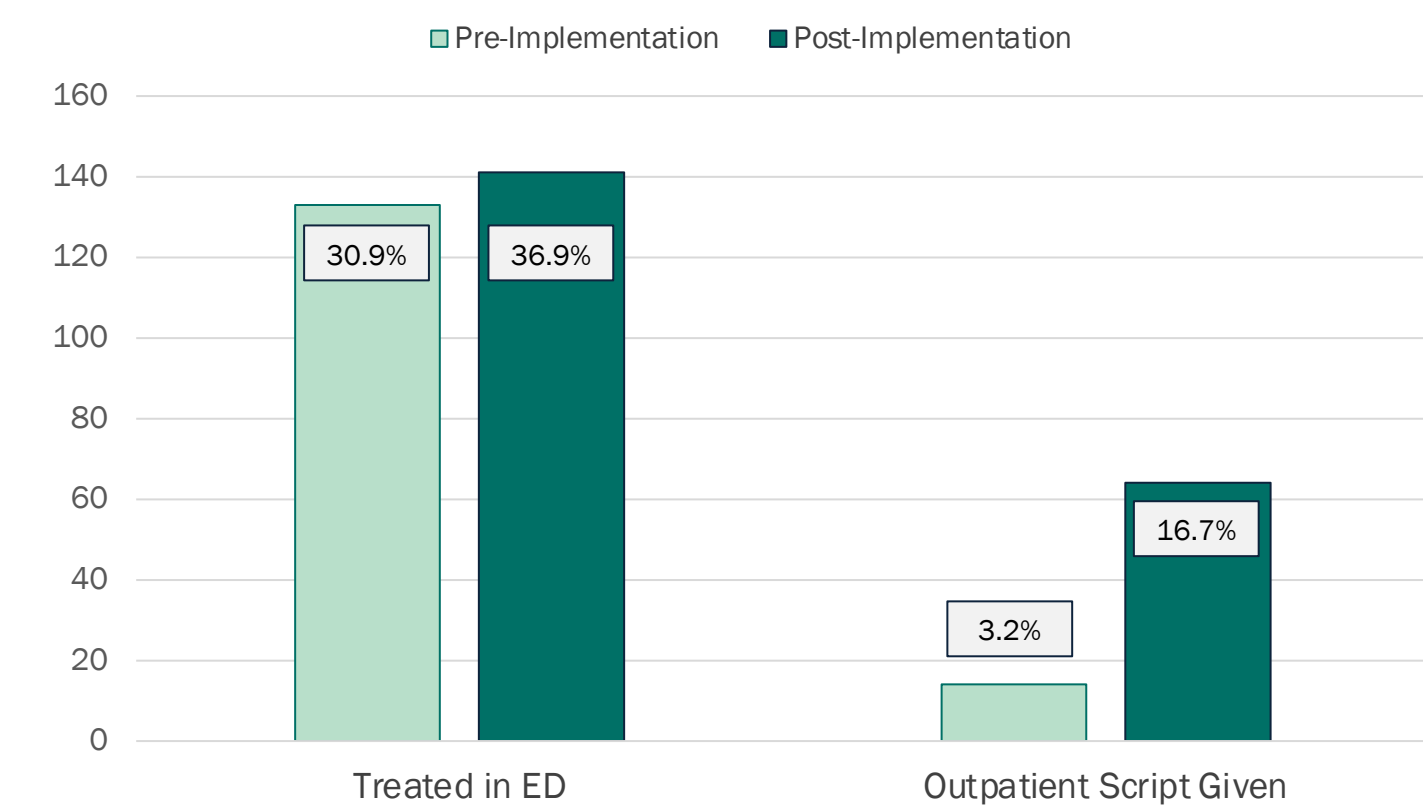
*statistically significant result

Discussion

Data analysis of pre- and post-implementation patient group metrics suggests **program efficacy** and **overall value** to the health system via the following:

➤ **Shorter ED LOS** for patients presenting with psychiatric concerns;
➤ **Improved diagnostic accuracy** for patients presenting with psychiatric concerns;
➤ **Increased provision of pharmacological treatment interventions** in the ED setting and upon discharge; and
➤ More **resource-appropriate disposition** of patients presenting with psychiatric concerns.

Future Directions:

- Review data set collected over 2 years post-program launch (n = 1373).
- De-duplicate data set to eliminate potential confounding.
- Collaborate with faculty biostatistician team for further statistical analysis.
- Collect and analyze additional metrics: restraint use (frequency and duration), use of 1:1 sitters, patient insurance status (to inform potential financial impact), additional demographic data (age, race, ethnicity, gender), time of presentation.

Our jointly administered program that embeds CL Psychiatrists into our academic ED care team has improved and enhanced the care of ED patients presenting with psychiatric concerns as well as operational efficiencies within the department.

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