



Mass General Brigham

# Applying Process Improvement Principles to Characterize and Mitigate Racial Disparities in Emergency Psychiatry

*UAR Symposium: October 27, 2022*

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# Problem Statement

- Patients referred for inpatient psychiatric admission from the MGH ED were found to have differential rates of admission to MGB vs non-MGB facilities by race
- Highest volume within MGB = MGH Acute Psychiatry Service (APS) → McLean
- Inpatient psychiatry referral processes are highly variable and introduce several avenues for structural factors and implicit bias to affect disposition outcomes
- Project Aims:
  - Identify referral/acceptance process factors contributing to race-based differences
  - Create standardized referral/acceptance workflows to mitigate process steps that may introduce race-based bias



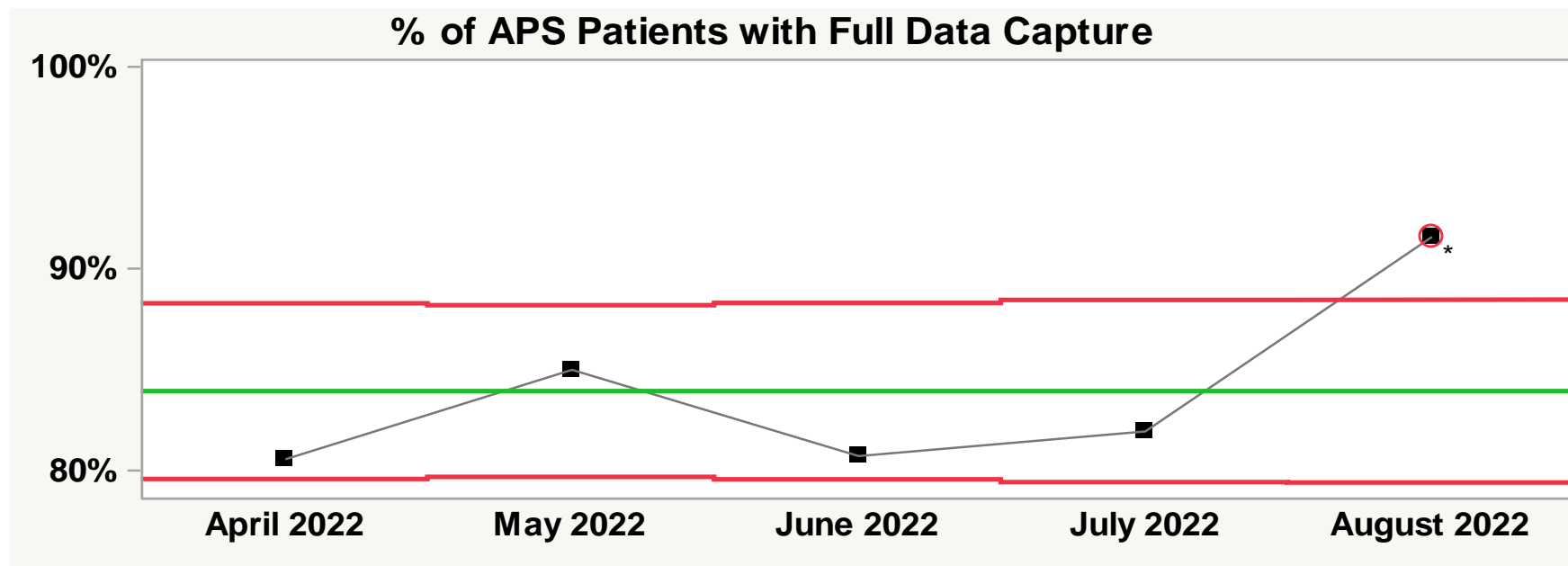
# Year 1 Accomplishments - Overview

- Developed data collection infrastructure to capture referral-related variables that are not coded in Epic in a structured format
  - REDCap-based survey instrument
  - APS social workers collect patient data in near real-time
- Found that 4 free-text documentation elements are significantly related to race-based differences in admission outcomes
  - Prior history of violence & violence during current episode
  - Prior history of legal issues & current legal issues
- Created & implemented structured drop-down lists to decrease bias in documentation



# Year 1 Accomplishments – Process Metrics

- Key Process Metric (Year 1): % of APS patients with full REDCap data capture
  - Denominator = # of APS consult orders per Epic ED data
  - Required multiple rounds of workflow development to achieve 80% target
  - Data shown since April 2022 (restart of data collection after staff re-hiring)



# Year 1 Accomplishments – Clinical Outcome Metrics

- Key Outcome Metric: Differential in rate of MGB vs external transfer, by patient race
  - Will additionally stratify by violence status and by legal status
  - Has been stable throughout pre-intervention period
- Additional Outcome Metrics:
  - Rate of admission versus discharge, by legal status, by patient race
  - Rate of admission versus discharge, by violence status, by patient race
- September 2022: First test of change implemented
  - Will closely track shifts in outcome metrics throughout Year 2



# Year 1 Challenges

- Labor intensive to capture relevant free-text data from evaluation & nursing notes
- Staffing changes, including pause in data collection due to staff departures
- Clinician comfort with structured legal/violence language
  - Multiple iterative conversations with ED clinicians required to finalize options
  - Tension between granular options and broad categories



# Looking Ahead: Plans for Year 2

- Key Process Metric (Year 2): % of clinical notes using structured documentation
- Evaluate effects of structured documentation on placement outcomes
- Assess concurrent effect of MGB system-wide bed-finding workflow
  - Collaborate with MGB team on refining acuity measures to minimize bias
- Pending effects of these changes, identify other sources of structural/process variations that differentially affect patients by race if disposition gap persists



# Appendix





# Team Members

Name	Credentials	Role/Discipline (i.e. hospitalist, nurse manager, analyst, etc.)
<b>Project Leaders:</b>		
Nicole Benson	MD, MBI	Associate Chief Medical Information Officer; Psychiatrist – McLean
Stephanie Pinder-Amaker	PhD	Chief Diversity, Equity, Inclusion Officer; Psychologist - McLean
Jonathan Zebrowski	MD, MHQS	Assistant Chief Quality Officer; Psychiatrist - MGH
<b>Team Members:</b>		
Suzanne Bird	MD	Director – Acute Psychiatry Service - MGH
Jason Mishoe	PMHNP-BC	Nurse Practitioner – Acute Psychiatry Service - MGH
Stephanie London	MD	Chief Resident, Acute Psychiatry Service – MGH/McLean Adult Psychiatry Residency
Stephen Tourjee	MD	Psychiatrist, Acute Psychiatry Service - MGH
Andee Peters-Kurtz	LICSW	Lead Case Manager, Acute Psychiatry Service - MGH
Curtis Wittmann	MD	Associate Director – Acute Psychiatry Service - MGH
Janet Wozniak	MD	Psychiatry Quality Chair - MGH
Andrea Pliakas	MD	Associate Director Medical Director, CEC, McLean
Lisa Horvitz		Operations Improvement Leader
Susan Szulewski	MD	Medical Director, CEC; Associate Chief Medical Officer, McLean
Diane Bedell	LICSW	Program Director, CEC and Ambulatory Services, McLean
Wendy Currie	LICSW	Director of Admissions, McLean
Christine Tebaldi	PMHNP-BC	Director, Clinical Business Development, McLean

**Project Sponsors:** Susanne Bird – MGH; Susan Szulewski – McLean; MGB System Behavioral & Mental Health

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