

Racial Disparities in Pain after Cesarean: Implementation of a Plan-Do-Study-Act (PDSA) Improvement Process

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> Background

- Racial/Ethnic disparities in obstetric outcomes *generally* known to be a national problem¹, but data on *specifics* still maturing
- Black patients have higher post-cesarean pain than peers¹
- Our local situation regarding this outcome was not tracked
- EHR documentation better for billing than clinical quality trends²

> Methods

- Created multidisciplinary CQI team (Nurses, OBs, OBAs)
- Tracked max Pain Scores after any cesarean delivery (0-24h and 24-48h), pivoted by patient race and averaged
- Initiation of PDSA cycles on 1 Sep 2021, adjusted weekly

> PDSA Interventions

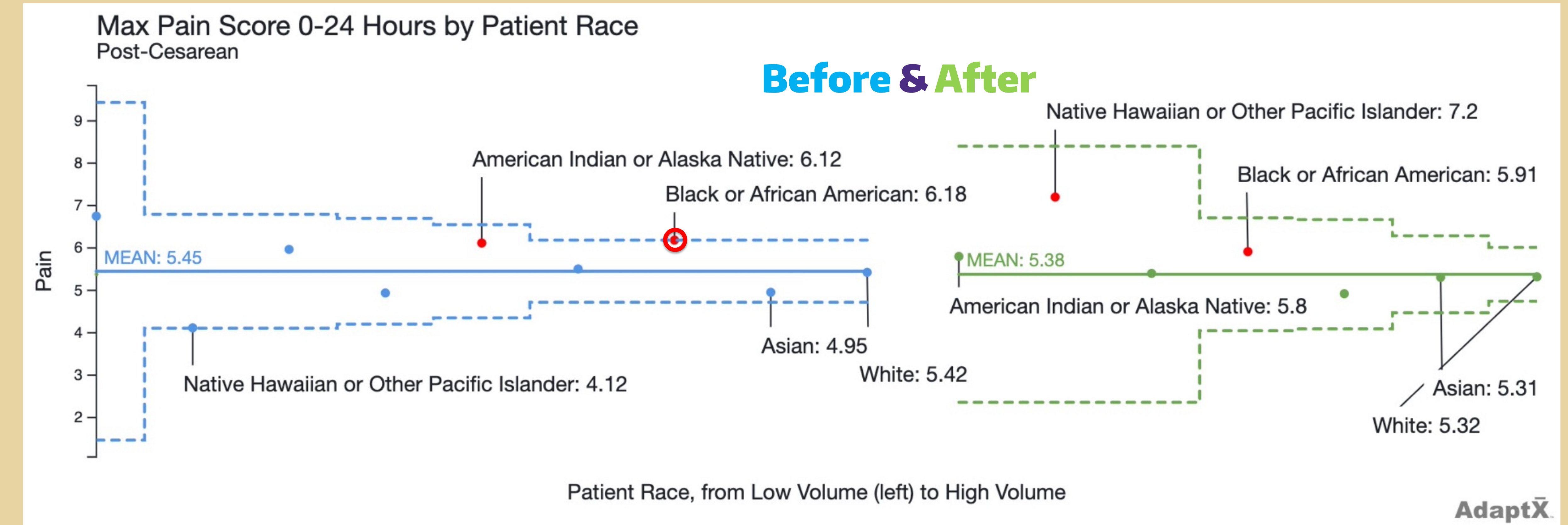
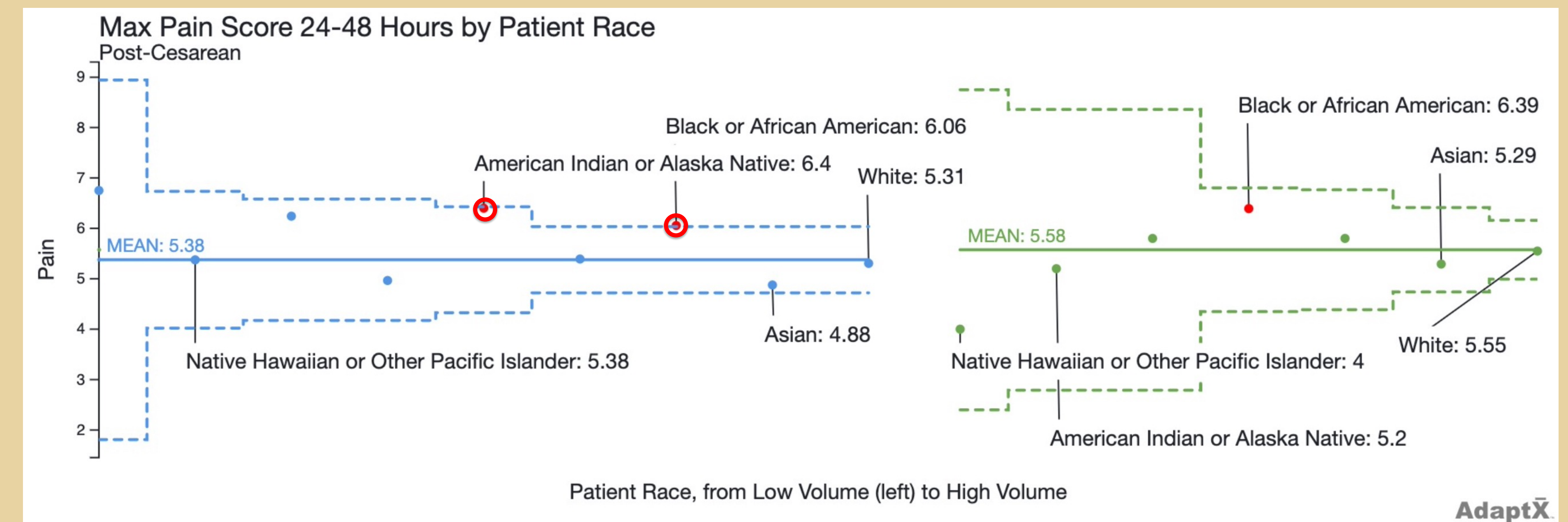
- Dashboard metrics to guide PDSA cycles
- Script and Visual Aid for analgesia discussion by nurse with patient
- Clarified oxycodone algorithm and rebuilt order set
- Synchronized how anesthesia and nursing staff discussed analgesia plan



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> Results

- 2077 Total patients before, 262 after
- 11.5% Black patients before, 8.4% after
- Outliers (≥ 3 sigma limits) improved since interventions
- For Black patients, Max Pain 0–24h decreased toward mean, **within 3 sigma limit**
- Max Pain 24–48h for Black patients moved **within 3 sigma limit**
- For American Indian and Alaskan Native patients, Max Pain 24–48h moved **within 3 sigma limit**





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Primary Drivers	Specific/secondary Drivers	Action Ideas
Pain Management	Assess pain the same	Data assessment
	Provide treatment at same threshold	Updated pain medication algorithm
Healing Environment	Ensure adequate Rest Time	Enforced Quiet Hours
Care Providers	Recognize & mitigate Implicit Bias in care	Implicit Bias Training
	Providers that reflect patient diversity	EDI Hiring Toolkit
	Unit provides trauma informed care	Multidisciplinary Unit Training
Patient-Centered Care	Understand patients' experience on unit	Maternal equity experience assessment
	Ensure anticipatory postpartum education	Formal prenatal guidance
	Ensure inpatient and discharge postpartum education	Updated Unit Pain Management education
	Address individual experience	OB Recovery Score & alternate pain management interventions

> Discussion

- 24-48h Analgesia less related to Anesthesia regimen
- Room for bias: Oxycodone for moderate or severe pain, or pain score >7
- Room for bias: Oxycodone *offered vs suggested vs available* if requested
- Document when indicated dose *not* given and *why not* (patient preference, clinical contraindication)
- Pain scores: suboptimal, associated with opioid liberality; yet quantitative and routinely documented ³

> Key Points

- Disparities need to be tracked & resolved as Quality outcomes
- Consider EHR-extraction Dashboards
- Identify care open to interpretation

> Literature

1. Badreldin N, et al. Obstet Gynecol 2019;134(6):1147
2. Klumpner T, et al. Curr Opin Anesthesiol 2017;30:300
3. Sultan P, et al. Am J Obstet Gynecol MFM 2020;2:100202

> Funding

- Merck for Mothers
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