# Reducing Emergence Delirium in Pediatric Dental Patients

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Background

- DCH Regional Medical Center - Tuscaloosa, AL
- Emergence delirium in pediatric dental patients results in the administration of more post-op narcotics than expected for procedure
- One-time bolus of dexmedetomidine shown to reduce emergence delirium and decreased postoperative pain scores
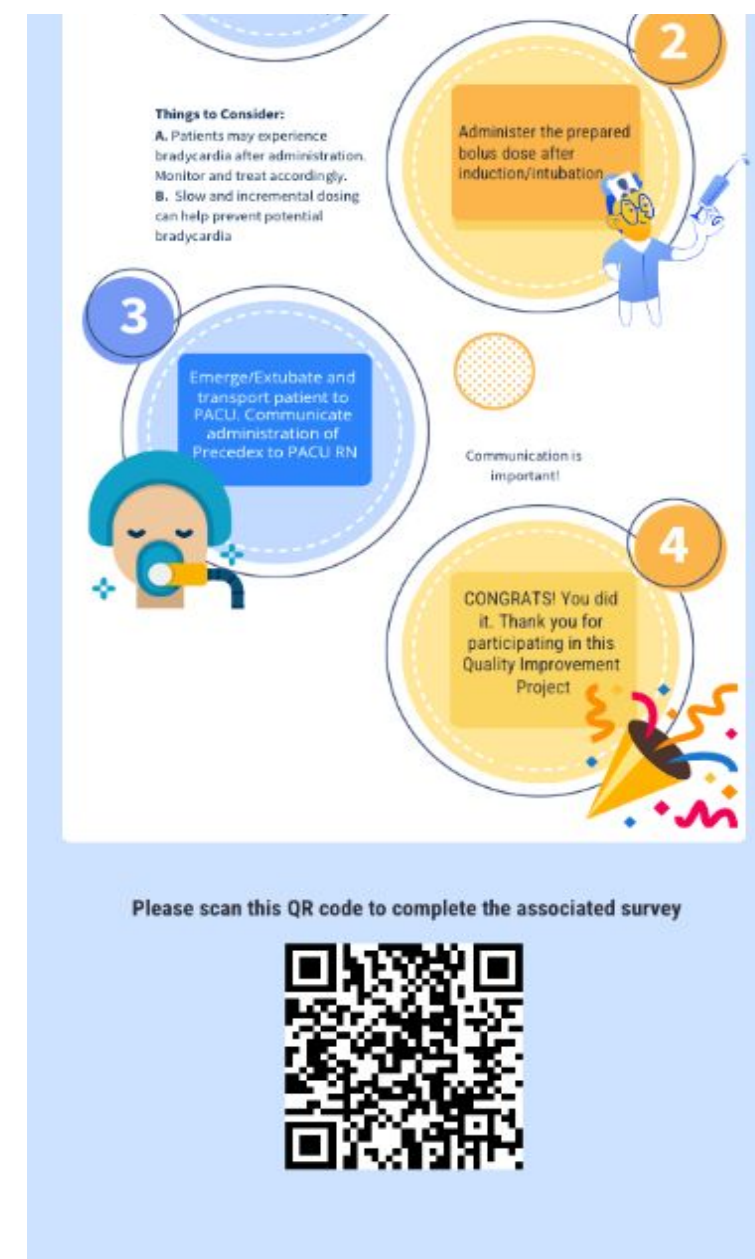
Methods

- FADE QI Model
- Diffusion of Innovation Theory (pictured below)
- Verbal teaching and infographics for CRNAs and PACU nurses
- Tests of normality, Mann-Whitney U, and Fisher Exact tests for nonparametric data using SPSS software
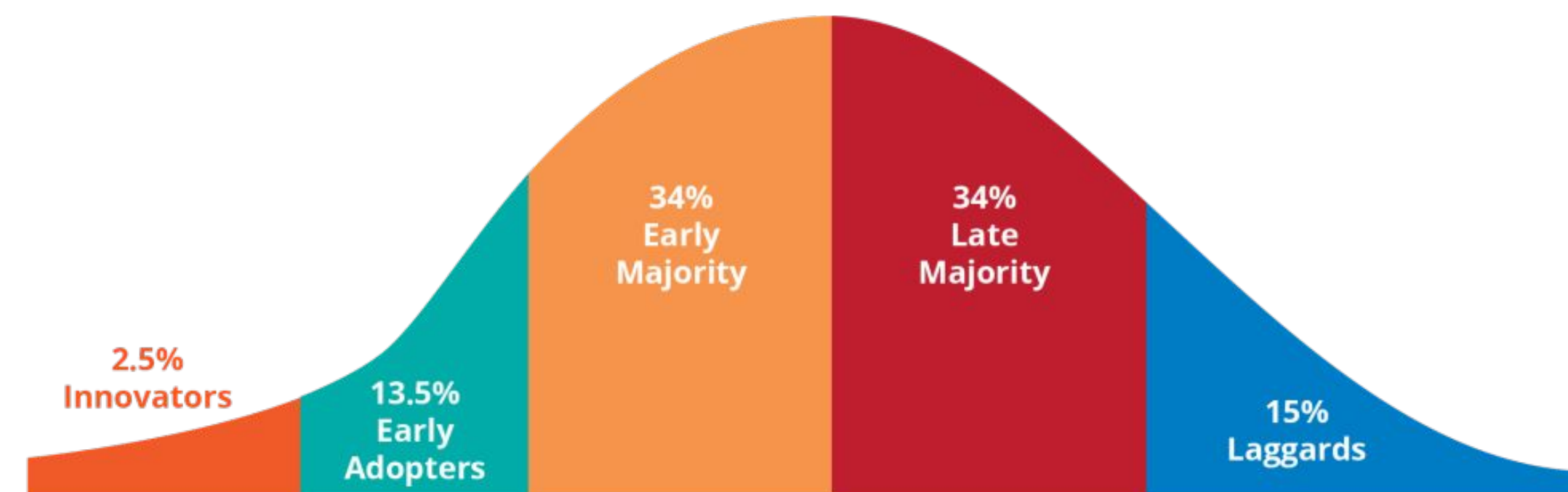
1. **Innovators** - eager to adopt change
2. **Early Adopters** - do not need to be convinced to adopt change
3. **Early Majority** - need evidence before adoption
4. **Late Majority** - skeptical of change
5. **Laggards** - bound by tradition

Results

	Pre-Intervention	Post-Intervention	Significance
Dexmedetomidine Administration			$< .001^*$
Yes	6	29	
No	30	0	
Narcotic Administration			$< .001^*$
Yes	25	3	
No	11	26	
PACU Time			.061
Mean (minutes)	57	62	
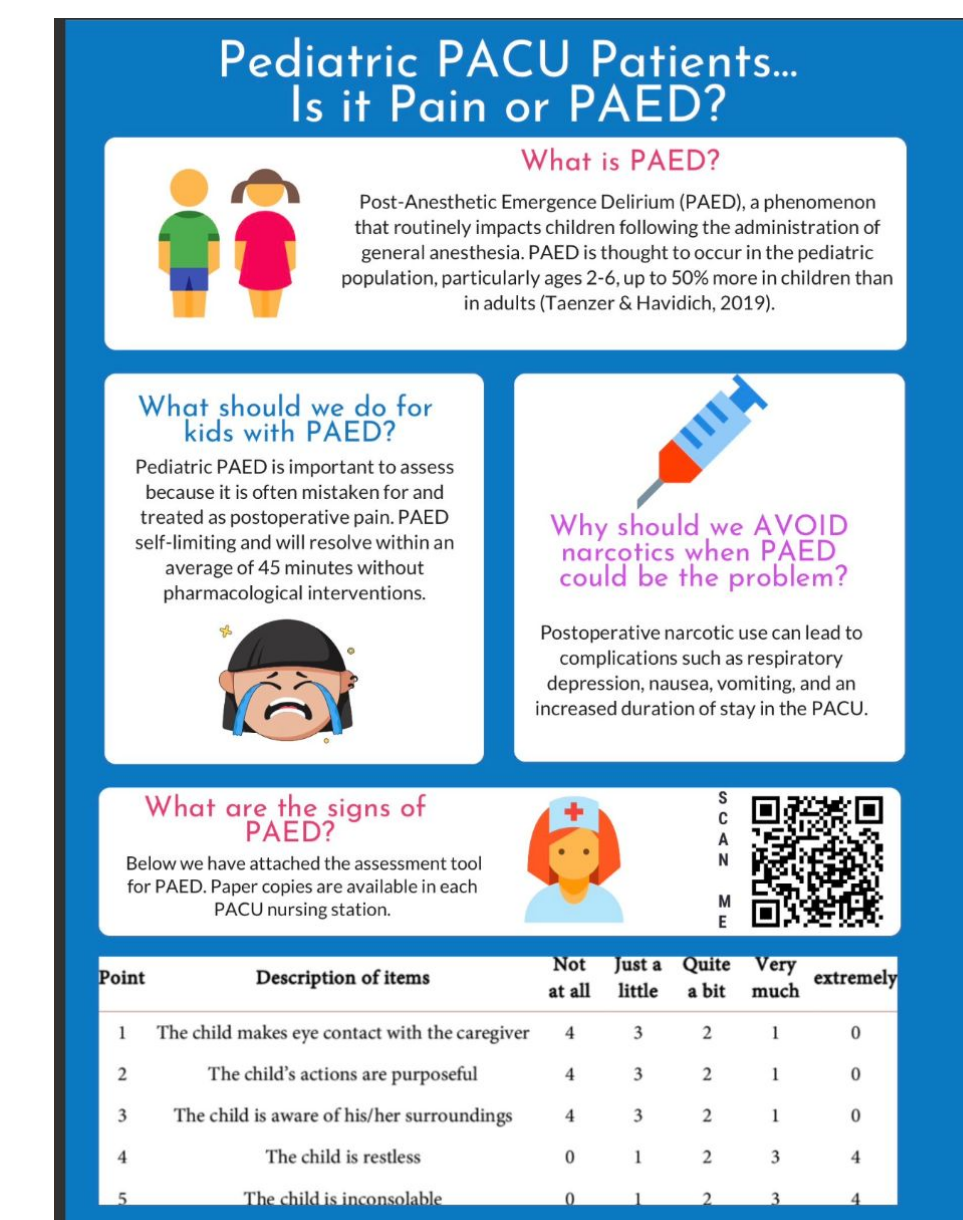
Purpose

The purpose of this project is to reduce emergence delirium and postoperative narcotic administration among pediatric dental patients at DCH Regional Medical Center through the implementation of evidence-based education bundles for CRNAs and PACU RNs.

Implications & Sustainability

- Overall decreased workload
- Increased staff and family satisfaction
- Change of staff culture
- Financial impact - decreased medication waste
- Expansion to prevent ED in other high risk populations

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