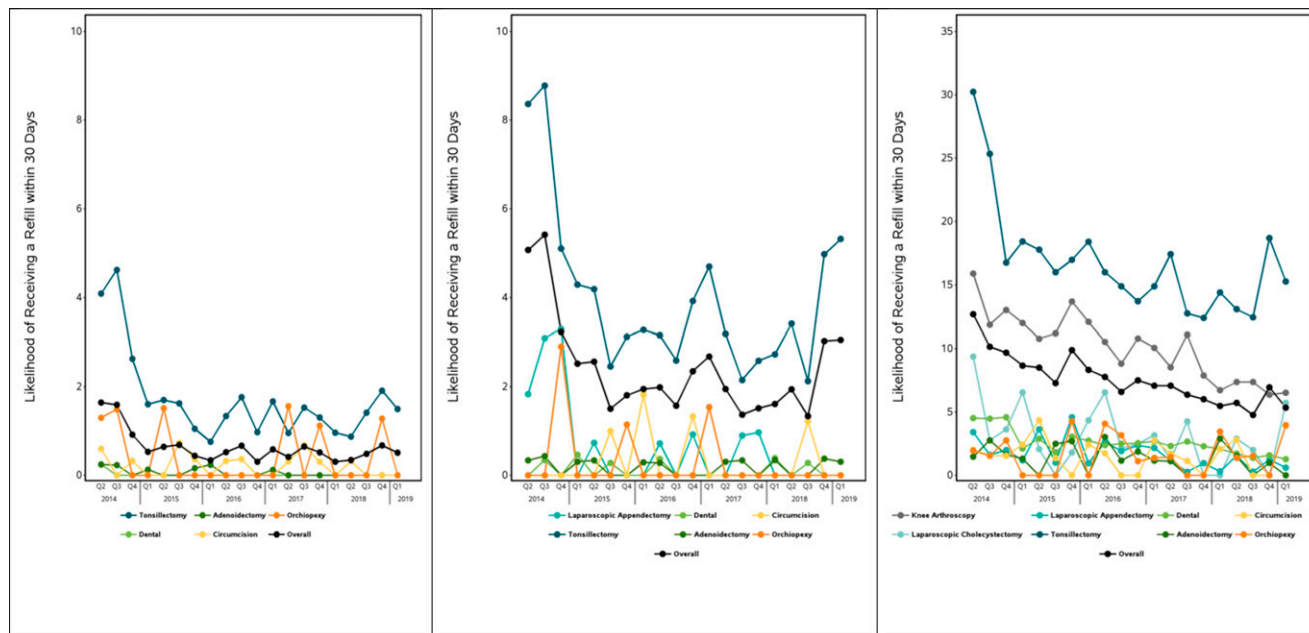
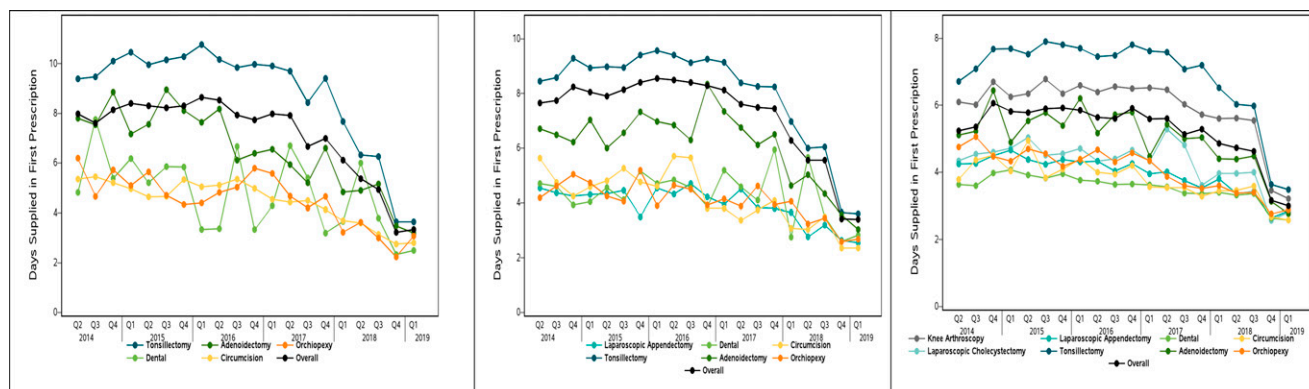


## Supplemental Information



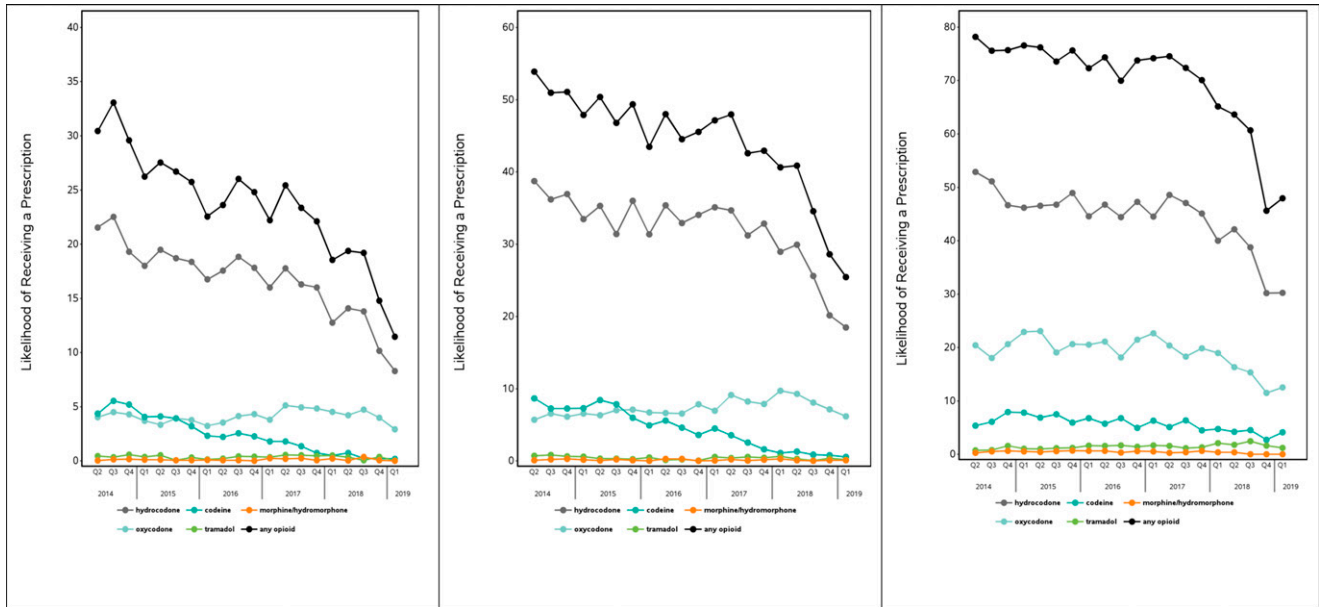
### SUPPLEMENTAL FIGURE 4

Percentage of children who received an opioid prescription refill after surgery, overall, and by procedure, 2014 to 2019. Each figure displays, by quarter and year, the percentage of children who received  $>1$  opioid prescription within 30 days of surgery. Panels contain data for the relevant procedures specific to the 3 age groups: (A) Infant to 4 years of age, (B) 5 to 10 years of age, and (C) 11 to 17 years of age.



### SUPPLEMENTAL FIGURE 5

Average days dispensed in initial opioid prescription after surgery, overall, and by procedure, 2014 to 2019. Panels contain the average days of opioid supply dispensed in the first opioid prescription filled within 7 days after surgery specific to the 3 age groups: (A) Infant to 4 years of age, (B) 5 to 10 years of age, and (C) 11 to 17 years of age.



**SUPPLEMENTAL FIGURE 6**

Percentage of children who filled an opioid prescription after surgery, overall, and by opioid type, 2014 to 2019. Each figure displays, by quarter and year, the percentage of children who filled an opioid prescription within 7 days of surgery. Panels contain data for the relevant procedures specific to the 3 age groups: (A) Infant to 4 years of age, (B) 5 to 10 years of age, and (C) 11 to 17 years of age.

**SUPPLEMENTAL TABLE 3** Procedure Included in the Analysis and Associated CPT Codes

Procedure	CPT codes
Circumcision	54150-54163
Dental surgery	41899
Orchiopexy	54640, 54600
Arthroscopic knee surgery	29880-29887, 29866-77
Laparoscopic appendectomy	44970
Tonsillectomy+/- adenoidectomy	42820, 42825, 42821, 42826
Adenoidectomy only	42836, 42835, 42831, 42830
Laparoscopic cholecystectomy	47562-47563

**SUPPLEMENTAL TABLE 4** ICD Codes for Comorbidities

Diagnoses	ICD-9	ICD-10
History of substance abuse	291.0-5, 291.8-82, 305.00-03, 304.40-43, 304.30-33, 304.20-23, 292.0, 304.00-304.03, 304.10-304.13	Part 1: F10, F11, F12, F13, F14, F15, F19 Part 2: 20-0.22, 0.23
Depression	296.2, 311	F33.0, F33.1, F33.2
OSA	327.23, 327.27, 327.21	G47.33, G47.30
Overdose	977.9	T50.901A, T50.902A, T50.903A, T50.904A

**SUPPLEMENTAL TABLE 5** Patient-Level Time Series Segmented Regression Analysis: Comparison of the Likelihood of Filling a Prescription After Versus Before Joinpoint Intercepts, Adjusted for Age, Sex, Race, Surgery and OSA Diagnosis

Age Group, y	PreJoinpoint		PostJoinpoint	
	Slope (95% CI)	P	Slope (95% CI)	P
Age <5	-0.63 (-0.71 to -0.55)	<.001	-2.04 (-4.40 to 0.32)	.09
Age 5-10	-0.60 (-0.70 to -0.50)	<.001	-3.40 (-4.75 to -2.04)	<.001
Age 11-17	-0.35 (-0.46 to -0.24)	<.001	-5.48 (-6.06 to -4.89)	<.001

We included demographic covariates listed in Table 1 for each of the 3 age groups, including age in years within the specific developmental group, sex, race, surgery type, and OSA diagnosis. Slopes represent the percentage change per quarter. The model controlled for quarter with relation to the identified Joinpoint quarter and contained indicators for period (pre- versus postJoinpoint) and the interaction of quarter and period, adjusted for the covariates listed above.