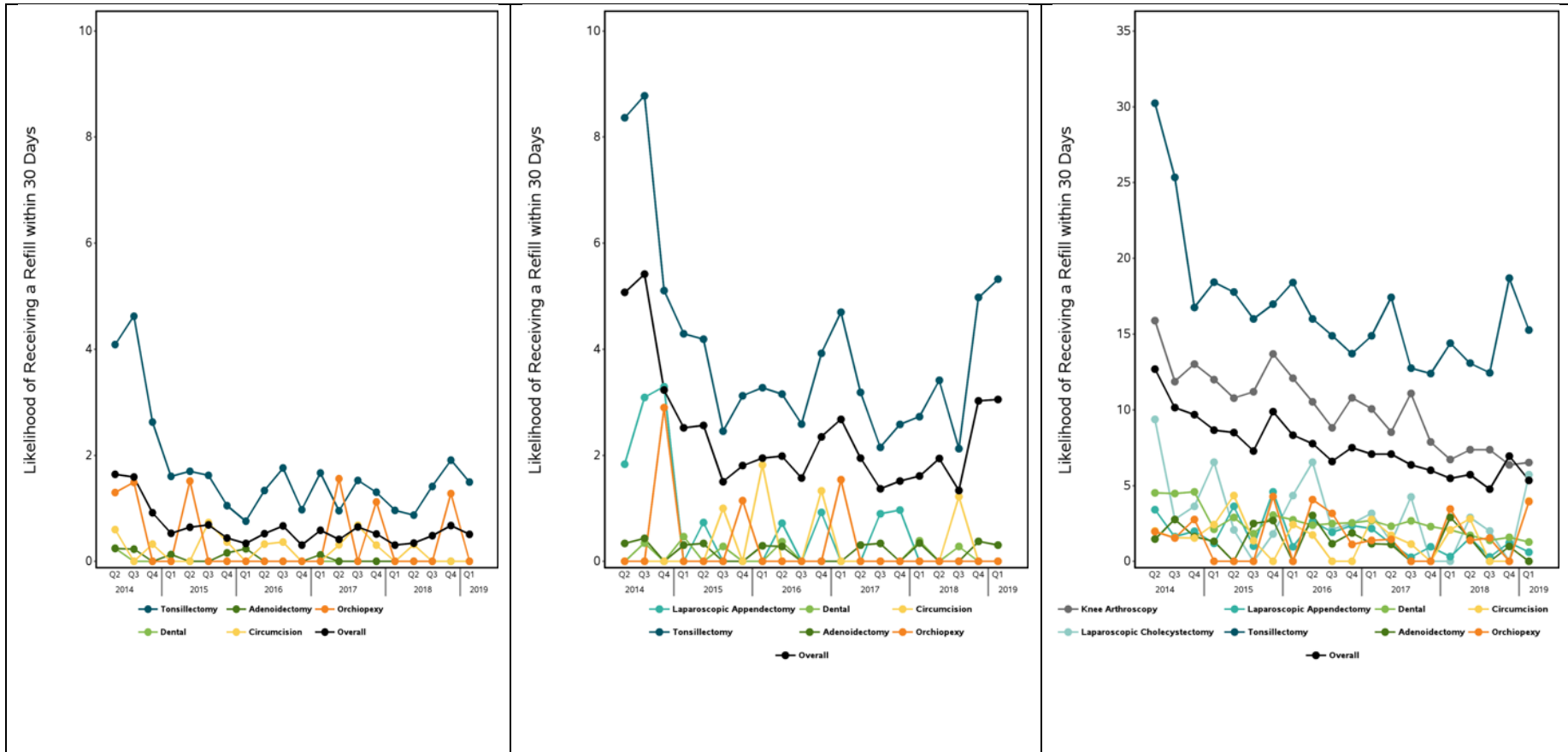


**Appendix: Trends in Routine Opioid Dispensing after Common Pediatric Surgeries in the United States: 2014–2019**

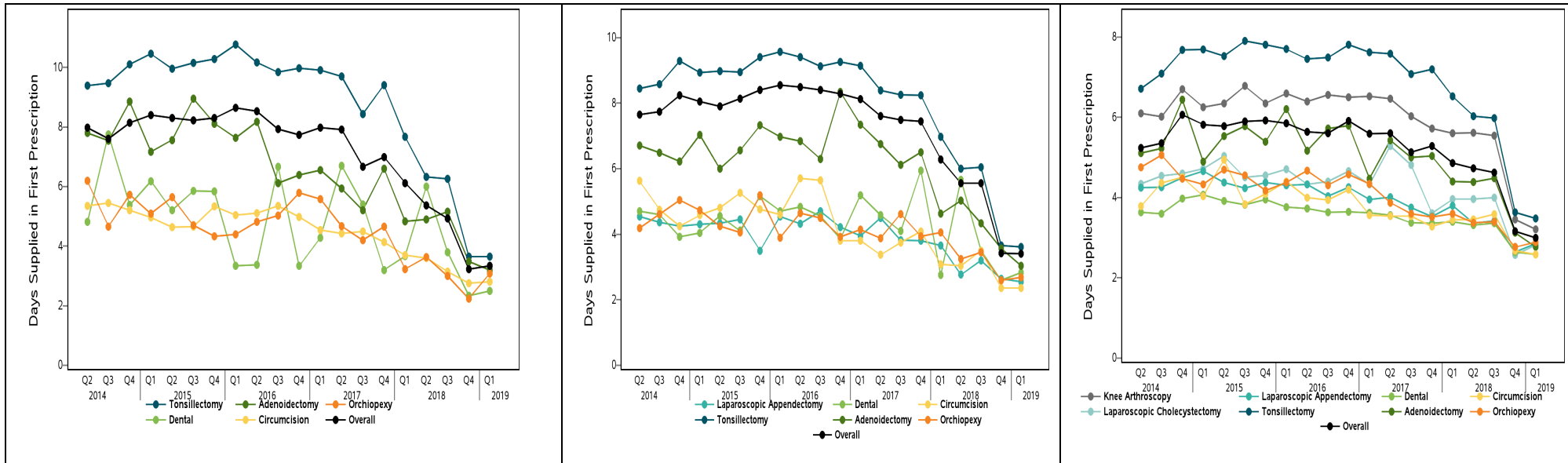
<b>Contents</b>	
<b>Item</b>	<b>Page</b>
<b>Appendix Table 1. Procedure Included in the Analysis and Associated CPT Codes</b>	<b>3</b>
<b>Appendix Table 2. ICD Codes for Common Co-Morbidities</b>	<b>4</b>
<b>Appendix Figure 1. Percentage of Children Who Received an Opioid Prescription Refill After Surgery, Overall and by Procedure, 2014-2019</b>	<b>5</b>
<b>Appendix Figure 2. Average Days Dispensed in Initial Opioid Prescription After Surgery, Overall and by Procedure, 2014-2019</b>	<b>6</b>
<b>Appendix Table 3. Patient-Level Time Series Segmented Regression Analysis: Comparison of the Likelihood of Filling a Prescription After Versus before Joinpoint Intercepts, Adjusted for Age, Gender, Race, Surgery and OSA diagnosis</b>	<b>7</b>
<b>Appendix Figure 3. Percentage of Children Who Received an Opioid Prescription After Surgery, Overall and by Opioid Type, 2014-2019</b>	<b>8</b>

<b>Appendix Table 1. Procedure Included in the Analysis and Associated CPT Codes</b>	
<b>Procedure</b>	<b>CPT codes</b>
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

<b>Appendix Table 2. ICD Codes for Comorbidities</b>		
<b>Diagnoses</b>	<b>ICD-9</b>	<b>ICD-10</b>
<b>History of Substance Abuse</b>	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-.22, .23,
<b>Depression</b>	296.2, 311	F33.0, F33.1, F33.2
<b>Obstructive Sleep Apnea (OSA)</b>	327.23, 327.27, 327.21	G47.33, G47.30
<b>Overdose</b>	977.9	T50.901A, T50.902A, T50.903A, T50.904A

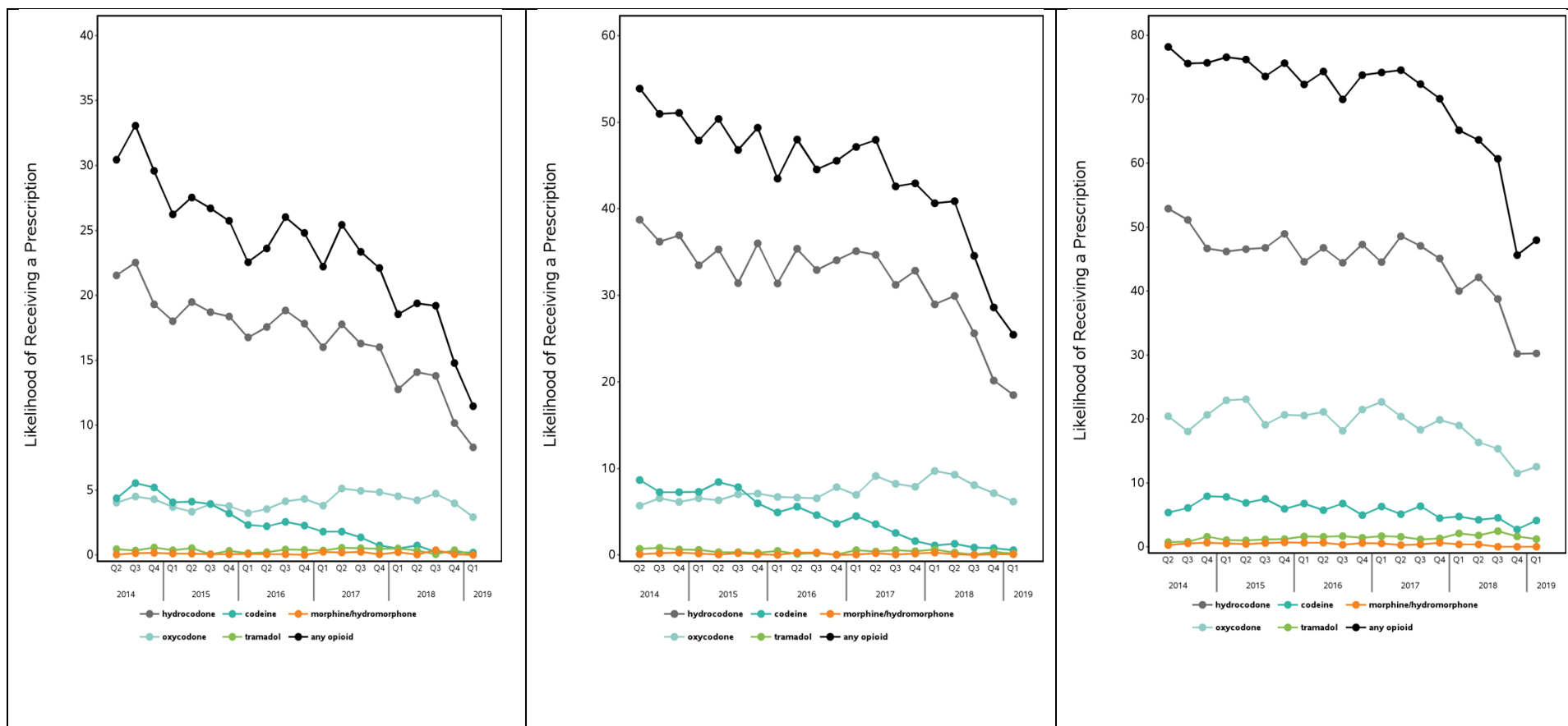


**Appendix Figure 1. Percentage of Children Who Received an Opioid Prescription Refill After Surgery, Overall and by Procedure, 2014-2019** Each figure displays, by quarter and year, the percentage of children who received more than one opioid prescription within 30 days of surgery. Panels show data for the relevant procedures specific to the three age groups: (A) Infant to 4 years (B) 5 to 10 years (C) 11 to 17 years



**Appendix Figure 2. Average Days Dispersed in Initial Opioid Prescription After Surgery, Overall and by Procedure, 2014-2019.** Panels show the average days opioid supply dispensed in the first opioid prescription filled within 7 days after surgery specific to the three age groups: (A) Infant to 4 years (B) 5 to 10 years (C) 11 to 17 years

<b>Appendix Table 3. Patient-Level Time Series Segmented Regression Analysis: Comparison of the Likelihood of Filling a Prescription After Versus before Joinpoint Intercepts, Adjusted for Age, Gender, Race, Surgery and OSA diagnosis</b>				
<b>Pre-Joinpoint</b>			<b>Post-Joinpoint</b>	
<b>Age Group</b>	<b>Slope (95% CI)</b>	<b>P value</b>	<b>Slope (95% CI)</b>	<b>P value</b>
Age <5 Years	-0.63 (-0.71, -0.55)	<0.001	-2.04 (-4.40, 0.32)	0.09
Age 5-10 Years	-0.60 (-0.70, -0.50)	<0.001	-3.40 (-4.75, -2.04)	<0.001
Age 11-17 Years	-0.35 (-0.46, -0.24)	<0.001	-5.48 (-6.06, -4.89)	<0.001
<p>1. We included demographic covariates listed in Table 1 for each of the three age groups, including age in years within the specific developmental group, gender, race, surgery type and obstructive sleep apnea 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 post-Joinpoint), and the interaction of quarter and period, adjusted for the covariates listed above.</p>				



**Appendix Figure 3. Percentage of Children Who Filled an Opioid Prescription After Surgery, Overall and by Opioid Type, 2014-2019.** Each figure displays, by quarter and year, the percentage of children who filled an opioid prescription within 7 days of surgery. Panels show data for the relevant procedures specific to the three age groups: (A) Infant to 4 years (B) 5 to 10 years (C) 11 to 17 years