



California Workers' Compensation Aggregate Medical Payment Trends

Updated through Calendar Year 2018

Released | September 2019 (Revised)



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Report Summary: California Workers' Compensation Aggregate Medical Payment Trends in Calendar Year (CY) 2018

General Trends in the Medical Payments and Transactions in CY2018

- Overall medical payments continued to decline.
- There were continuous sharp declines in the medical payments for pharmaceuticals and to pharmaceutical providers.
- Physical therapy services experienced the largest increase in the share of medical payments driven by increases in both service utilization and paid per service.

Fastest-Growing Physician Services Procedures and Therapeutic Group

- Physical Medicine and Rehabilitation procedures continued to grow the fastest within all physician services.
- Use of anticonvulsants increased more significantly than that of any other therapeutic groups.

Opioid Prescriptions and Costs

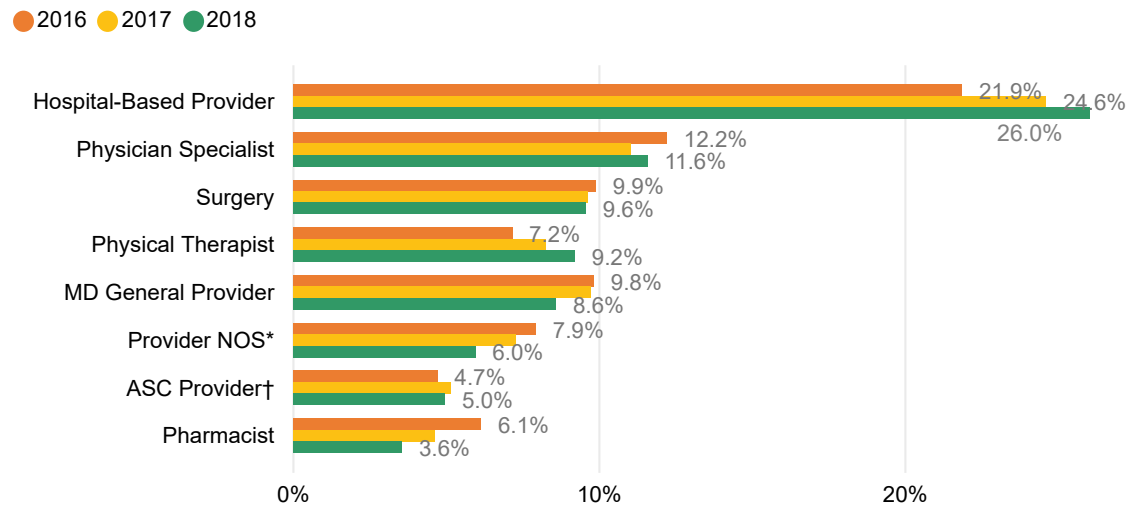
- There were steady and significant decreases shown in the following:
 - Share of claims that involve opioid prescriptions
 - Average doses of opioids prescribed
 - Concurrent use of opioids and sedatives
- The Fresno, Bakersfield and Tulare areas had the highest share of claims involving opioid prescriptions, while the Silicon Valley area and the Los Angeles Basin had the lowest share.

Summary Data

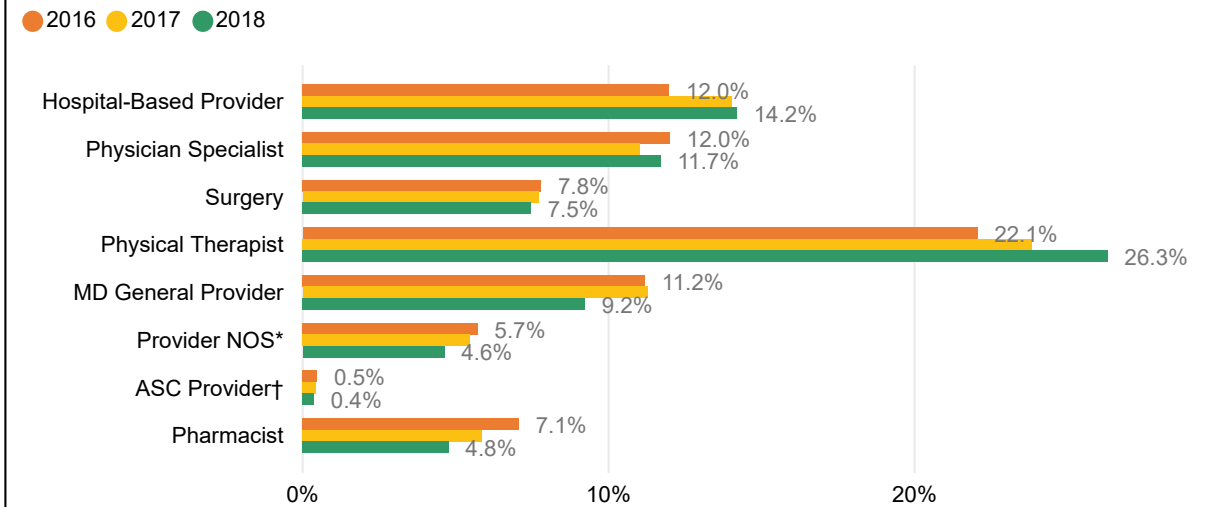
CY2018	% Change CY2017 - CY2018
\$2Bn Medical Payments	-2.8%
648K Number of Claims	-1.9%
15M Paid Medical Transactions	-5.0%
\$133 Paid per Transaction	2.3%
\$3,163 Paid per Claim	-0.9%

Report 1 – Medical Payments and Transactions by Provider Type

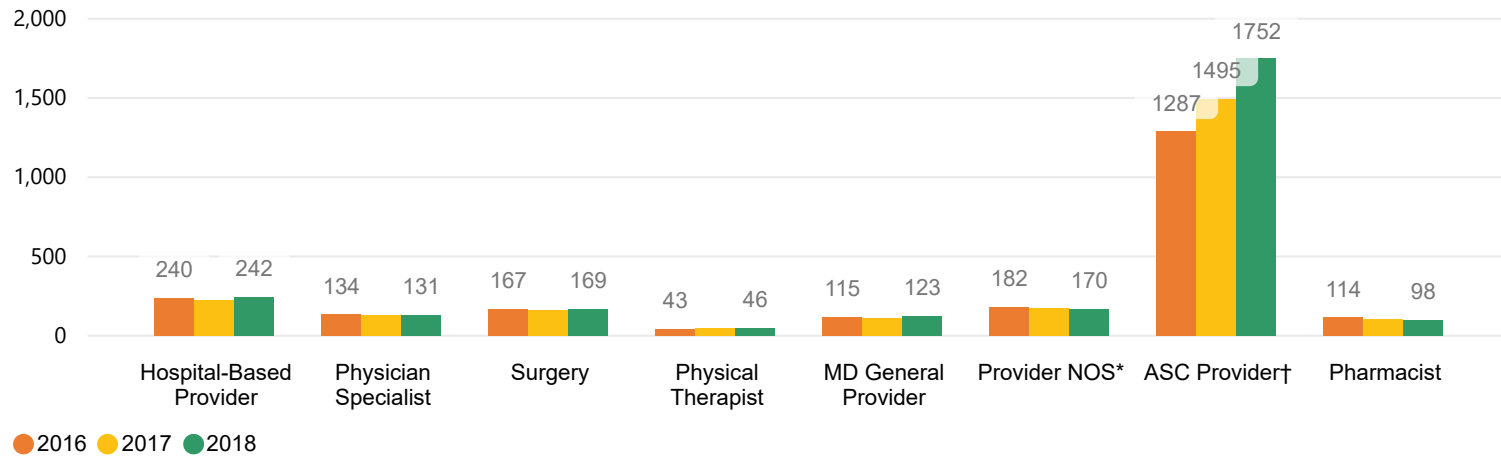
A - Share of Total Medical Payments



B - Share of Total Medical Transactions



C - Paid per Transaction (\$)



Insights

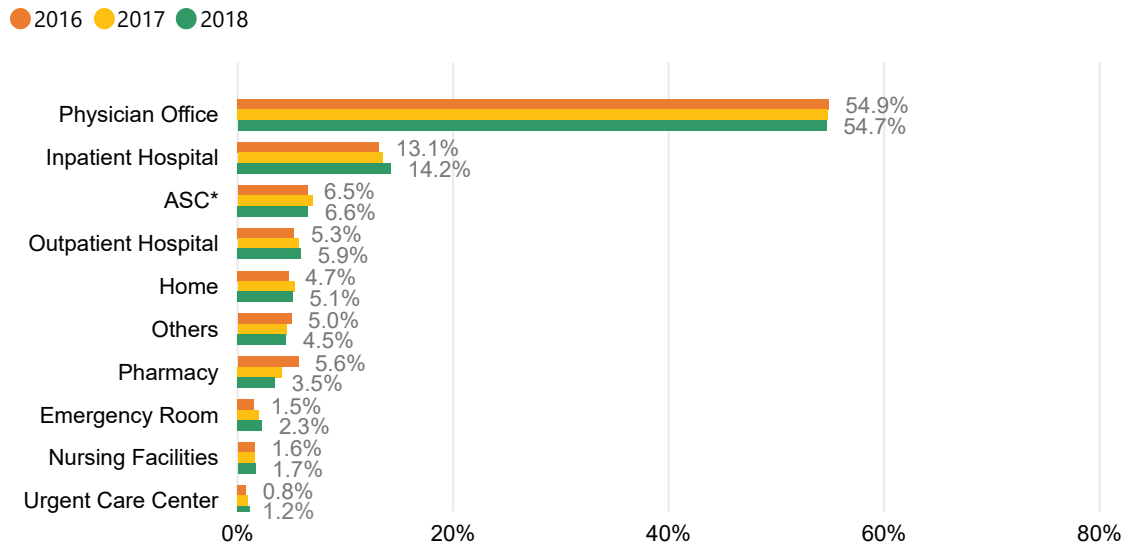
- Hospital-Based Providers had the highest share (26%) of medical payments in 2018, similar to recent prior years. Payments to Pharmacists experienced the largest decline.
- Medical transactions by Physical Therapists accounted for the highest share (26%) of transactions in 2018 and the largest increase in the transaction share since 2017.
- Paid per transaction for all provider types in 2018 was similar to the prior years except for ASC providers, which experienced the largest increase (17%) in 2018 compared to 2017, partly due to continued addition of surgical procedures to the ASC fee schedule.

* NOS - Not Otherwise Specified. Taxonomy Code Reported as 174400000X.

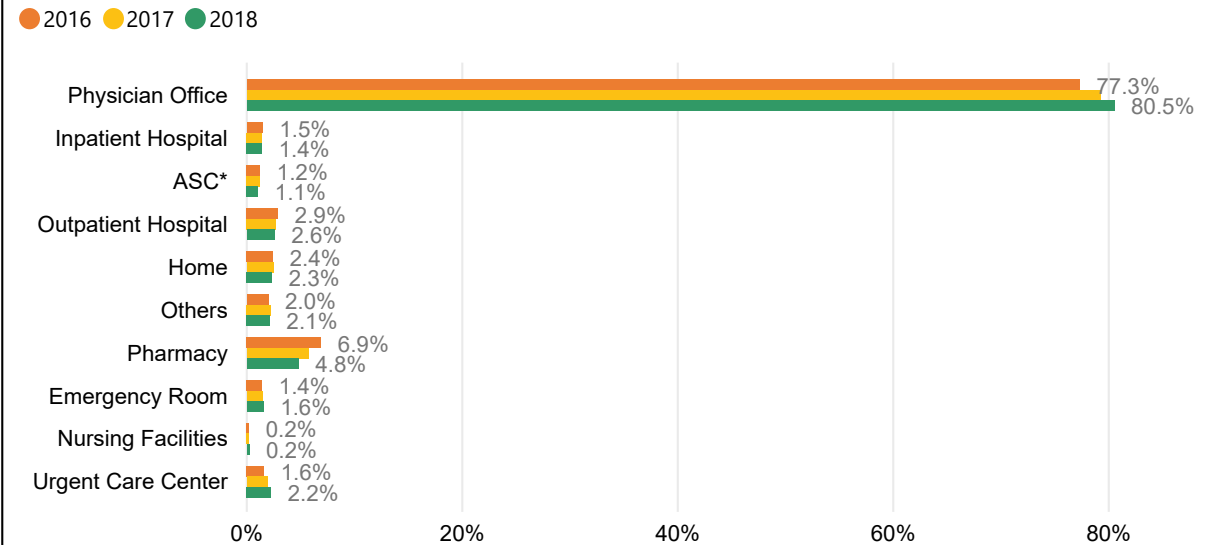
† ASC - Ambulatory Surgery Center

Report 2 – Medical Payments and Transactions by Place of Service (Top 10)

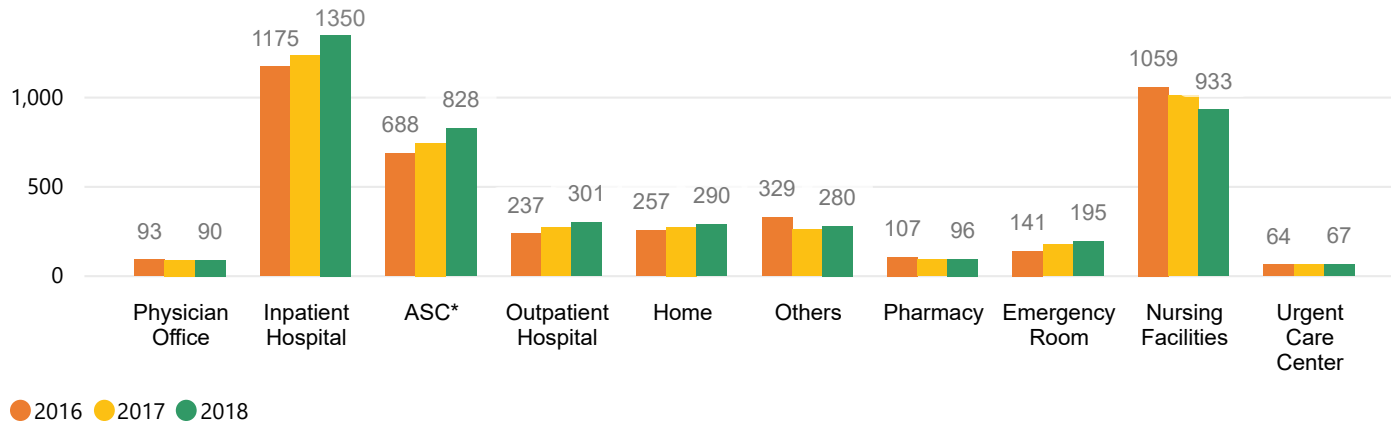
A - Share of Total Medical Payments



B - Share of Total Medical Transactions



C - Paid per Transaction (\$)

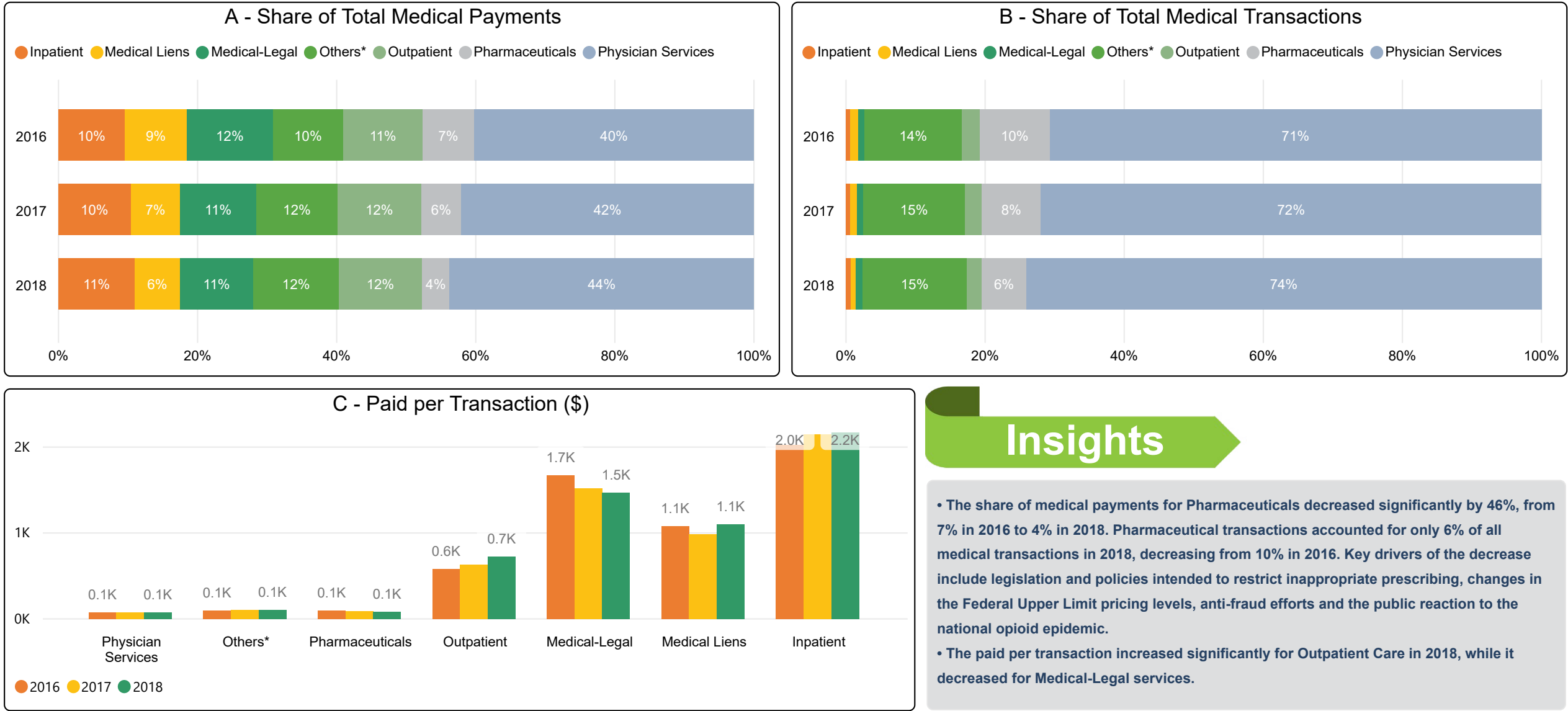


Insights

- Similar to recent prior years, Physician Office remained as the leading Place of Service, accounting for the highest share (55%) of medical payments in 2018. This was mostly driven by its highest share of medical transactions in 2018.
- Emergency Rooms experienced the largest percentage increase in the share of the medical paid, while Pharmacy had the largest decrease, primarily driven by the largest decrease in the transaction share in 2018 compare to prior years.
- Paid per transaction increased significantly for Inpatient Hospitals and Ambulatory Surgery Centers in 2018, while the paid per transaction decreased considerably for Nursing Facilities.

* ASC - Ambulatory Surgery Center

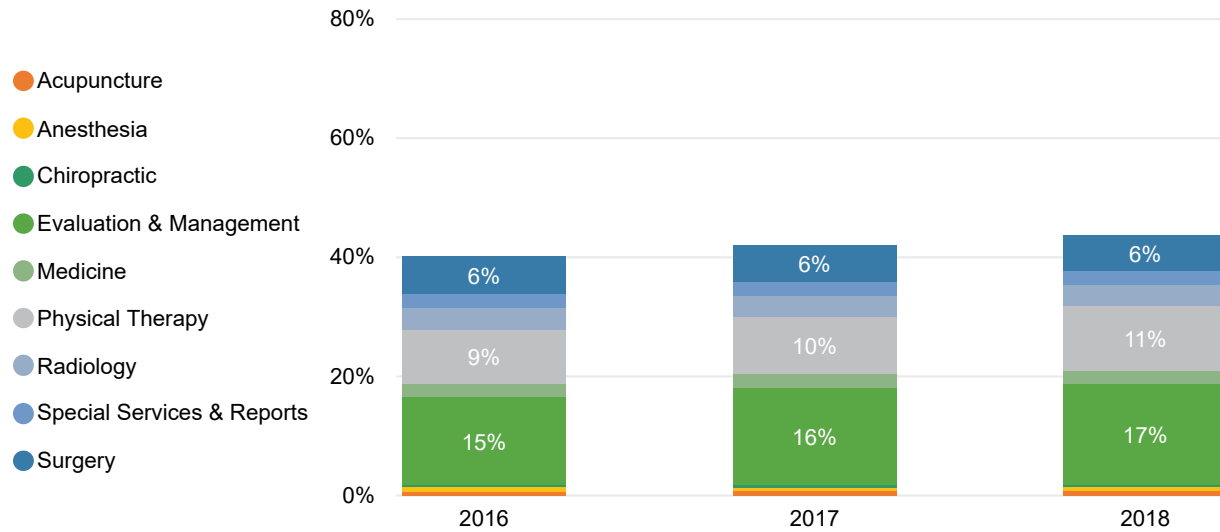
Report 3 – Medical Payments and Transactions by Procedure Type



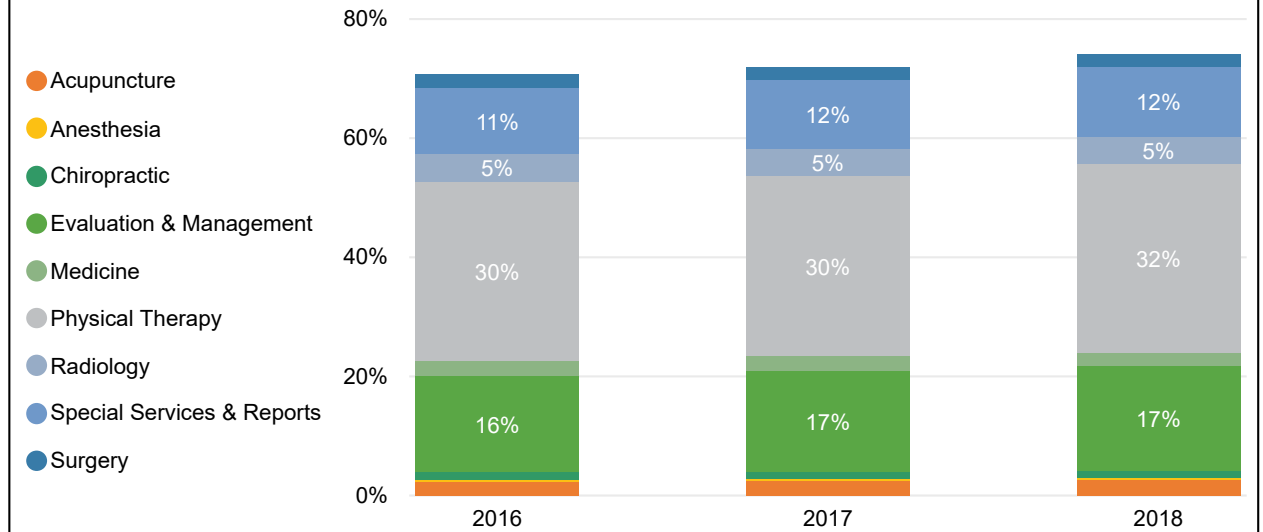
* Others includes Health Care Procedure Code System (HCPCS) codes, Dental and Copy services, and Pathology and Laboratory testing.

Report 4 – Medical Payments and Transactions for Physician Services

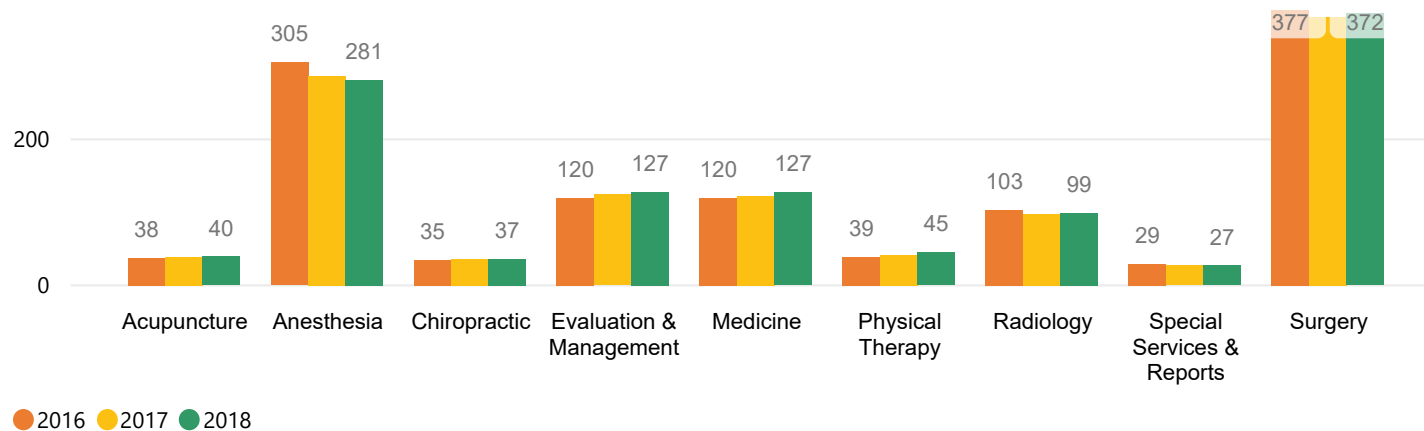
A - Share of Total Medical Payments



B - Share of Total Medical Transactions



C - Paid per Transaction (\$)



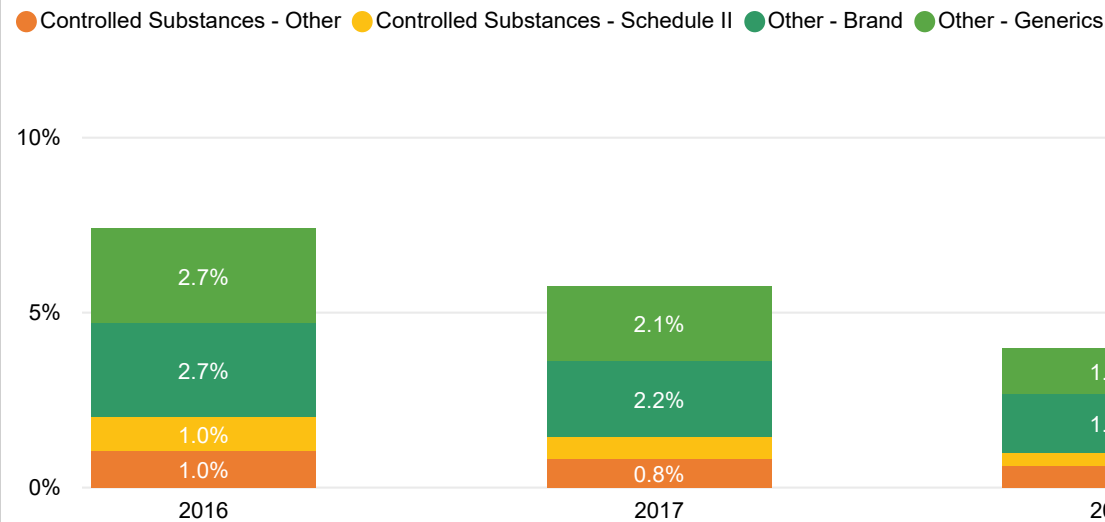
Insights

- Physical Therapy services experienced the largest increase in the share of medical payments in 2018 compared to the prior two years, followed by Evaluation and Management. The increased share of medical payments for Physical Therapy was driven by increases in both the transaction share and paid per transaction.
- Paid per transaction for specialty care, including Surgery, Radiology and Anesthesia, continued to decline in 2018, which was expected at the completion of the four-year transition to the RBRVS*-based fee schedule between 2014 and 2017 that reduced reimbursement for specialty care and increased that for primary care.

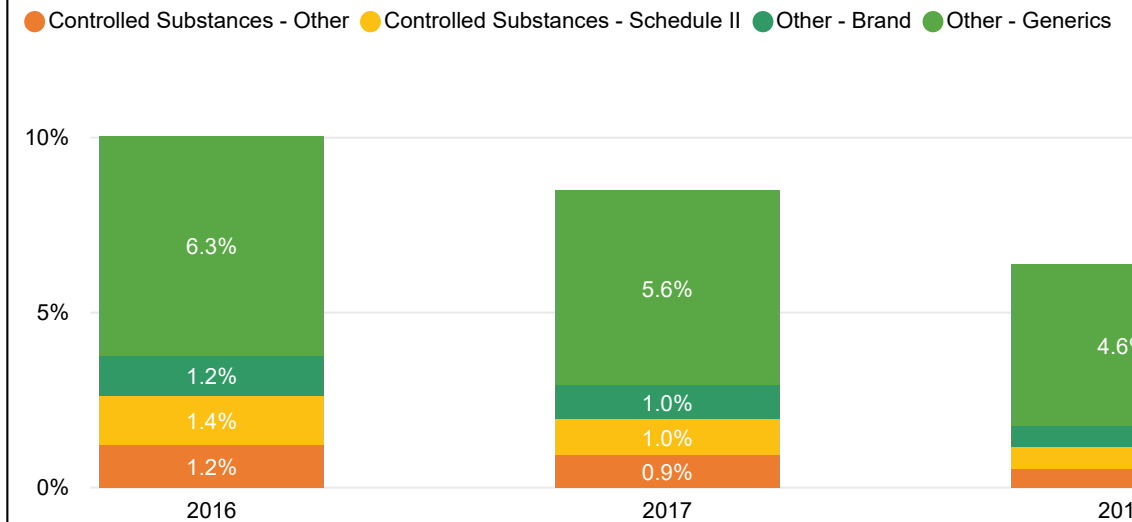
* RBRVS - Resource-Based Relative Value Scale

Report 5 – Medical Payments and Transactions for Pharmaceuticals

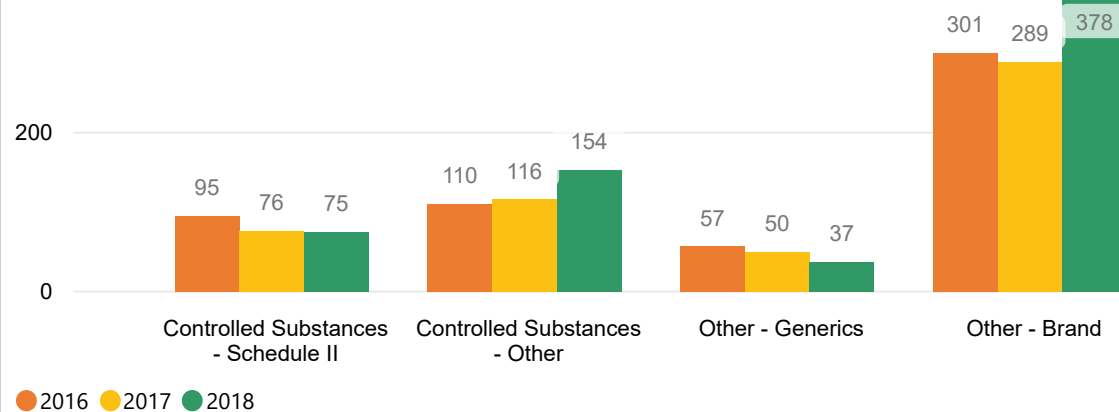
A - Share of Total Medical Payments



B - Share of Total Medical Transactions



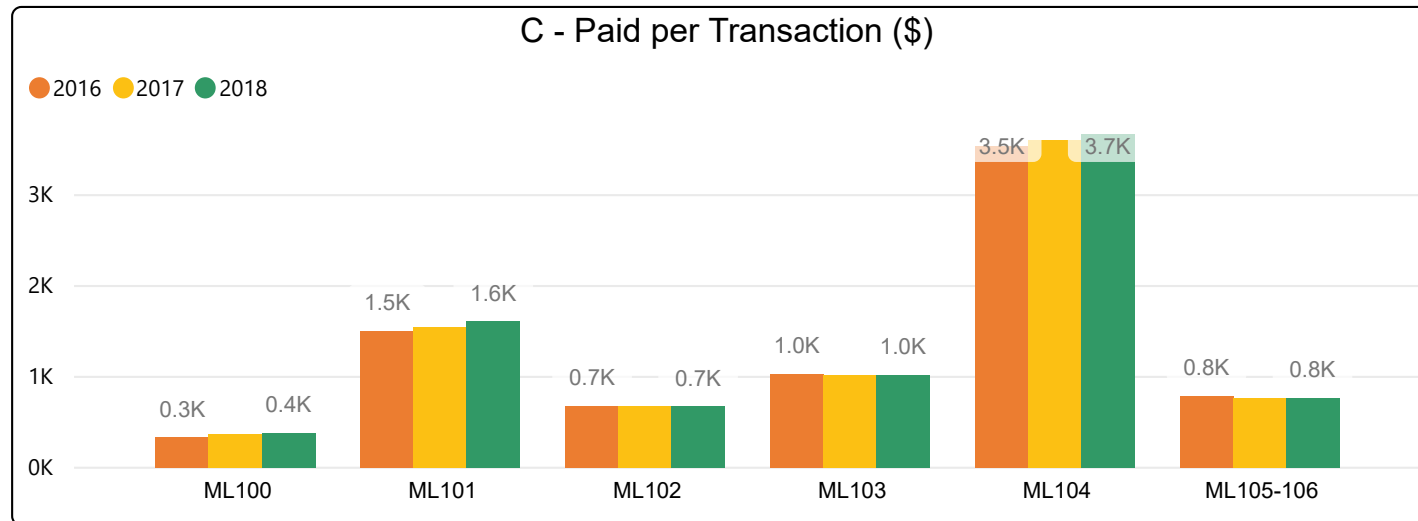
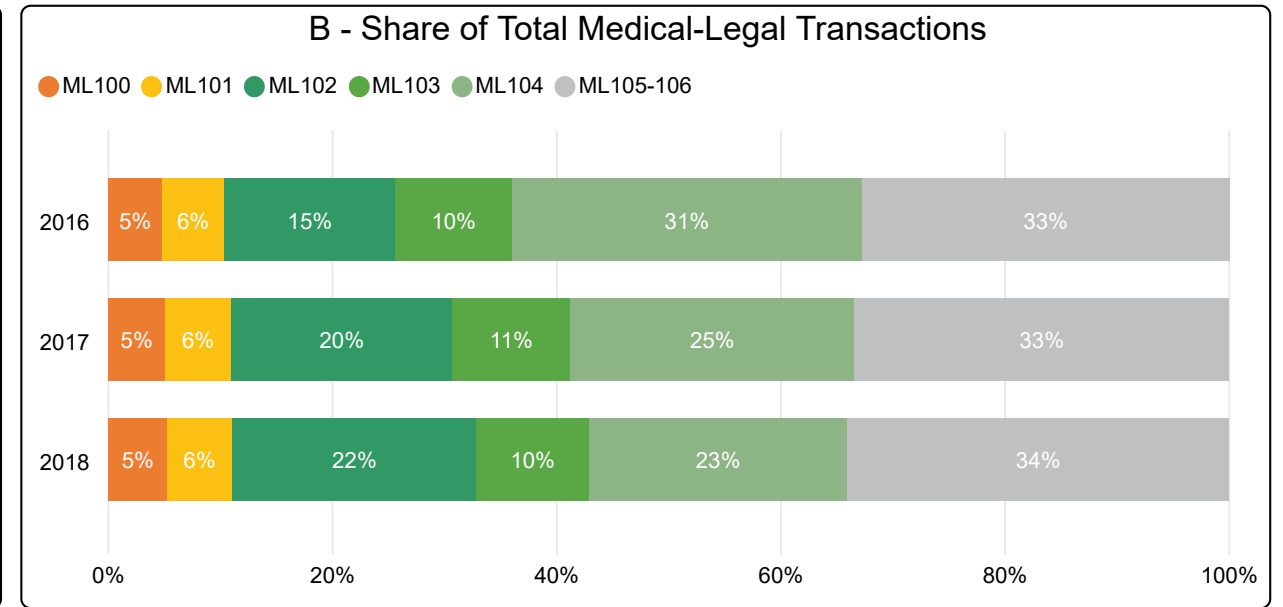
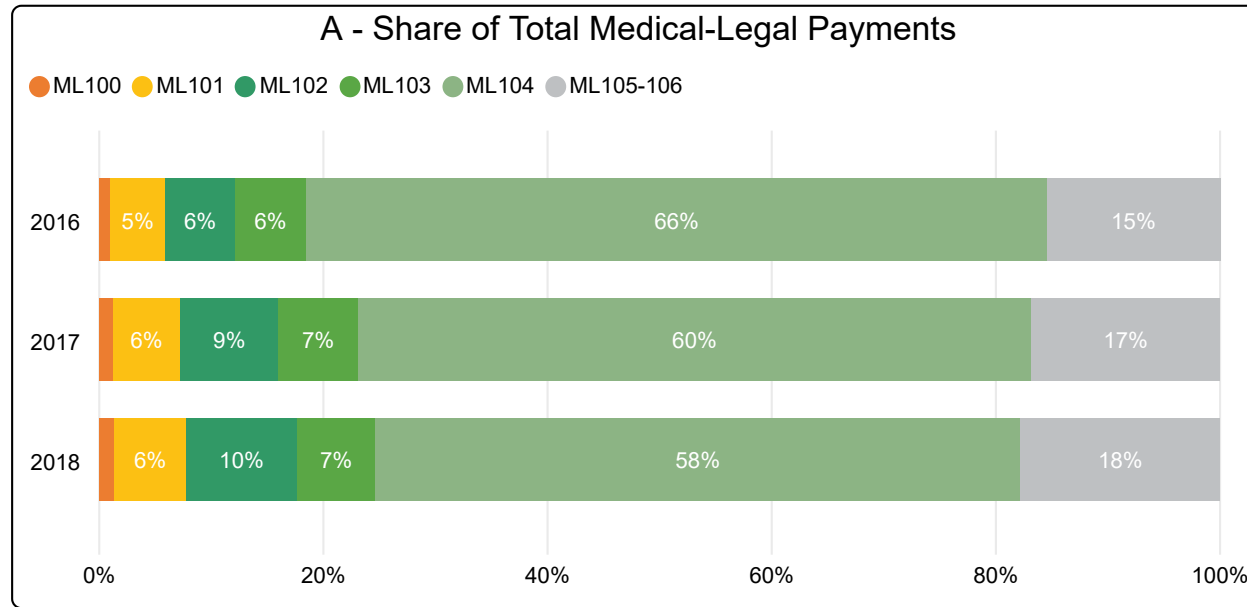
C - Paid per Transaction (\$)



Insights

- The share of medical payments for Pharmaceuticals declined significantly. The payments and transactions for Controlled Substances, in particular, dropped significantly from 2016 to 2018.
- Paid per transaction for brand name drugs increased significantly in 2018 compared to prior years, while that for generics decreased.
- The decreases in both Pharmaceutical transactions and paid per transaction were due to: (1) reduction in opioids prescribing (see Reports 8 and 9 for more details), (2) the incorporation of Federal Upper Limit in April 2016, which sets the fee structure for California workers' compensation, (3) the continued effects of Senate Bill No. 863 provisions including independent medical review, (4) anti-fraud efforts and 5) the likely impact of the new Drug Formulary, which went into effect January 1, 2018.

Report 6 – Medical Payments and Transactions for Medical-Legal Evaluations



Insights

- The share of total medical transactions for ML104 (the most complex and expensive Medical-Legal evaluation) decreased by 26% in 2018 compared to 2016, while that for ML102 (the most basic Medical-Legal evaluation) increased by 42%. This pattern suggests a changing mix of Medical-Legal services, attributable to the efforts by the Division of Workers' Compensation (DWC) to assure that sufficient documentation of the complexity is provided on ML104 reports.
- The paid per transaction for ML104, ML101 (follow-up Medical-Legal evaluation) and ML100 (missed appointment) continued to increase modestly.

See appendix for descriptions of Medical-Legal procedure codes.

Report 7 – Fastest-Growing Procedure Code Sets and Therapeutic Groups

A - Fastest-Growing Procedure Code Sets, CY2018 vs. CY2017

Growth Rank	Procedure Code Set	Procedure Code Range	Percentage Point Change in Medical Payment Share	Medical Payment Share (CY2018)	Medical Transaction Share (CY2018)	Paid per Transaction (\$) (CY2018)
1	Physical Medicine and Rehabilitation	97010-97799	2.43	24.08%	41.05%	\$45
2	Prolonged Services	99354-99416	0.37	1.53%	0.88%	\$134
3	Emergency Department Services	99281-99288	0.14	1.41%	0.61%	\$179
4	Drug Assay Procedures	80305-80377	0.08	0.17%	0.26%	\$51
5	Other Services and Procedures	99170-99199	0.07	2.16%	0.96%	\$174
6	Acupuncture	97810-97814	0.07	1.78%	3.47%	\$40
7	Anesthesia for Intrathoracic Procedures	00500-00580	0.01	0.02%	0.00%	\$2,164
8	Preventive Medicine Services	99381-99429	0.01	0.04%	0.06%	\$55
9	Critical Care Services	99291-99292	0.01	0.10%	0.03%	\$305
10	Hydration, Therapeutic, Prophylactic, Diagnostic Injections and Infusions, and Chemotherapy	96360-96549	0.01	0.09%	0.08%	\$89
Total				31.39%	47.40%	

Insights

• The procedure code set related to **Physical Medicine and Rehabilitation** continued to be the greatest gainer between 2017 and 2018. These procedures received the largest share (24%) of payments for Physician Services.

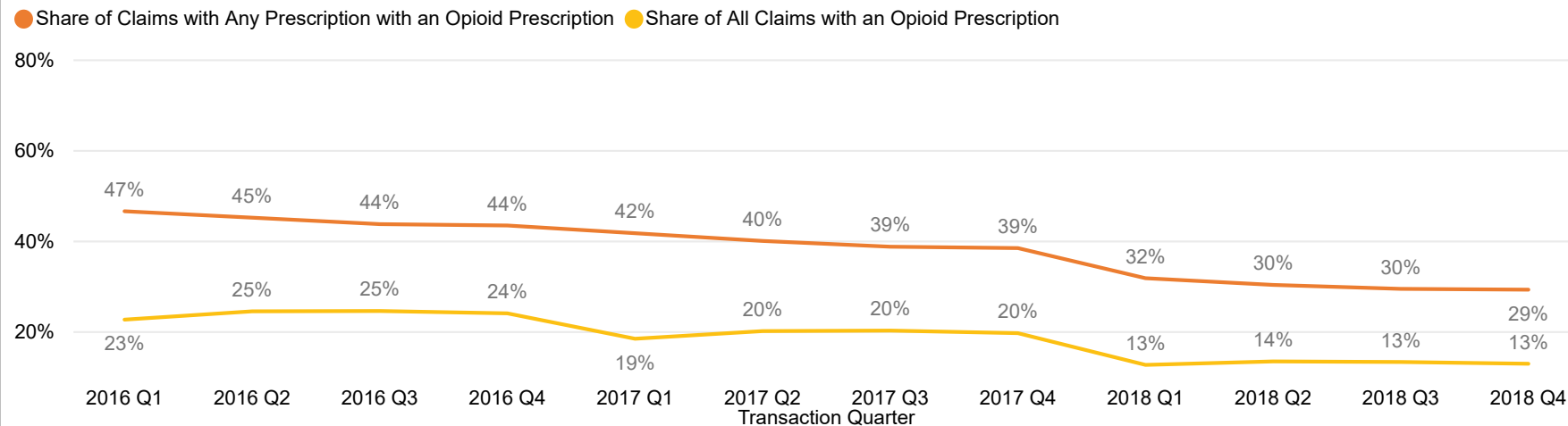
• Anticonvulsants were the fastest-growing therapeutic group in 2018, which are increasingly used in the treatment for neuropathic pain.

B - Fastest-Growing Therapeutic Groups, CY2018 vs. CY2017

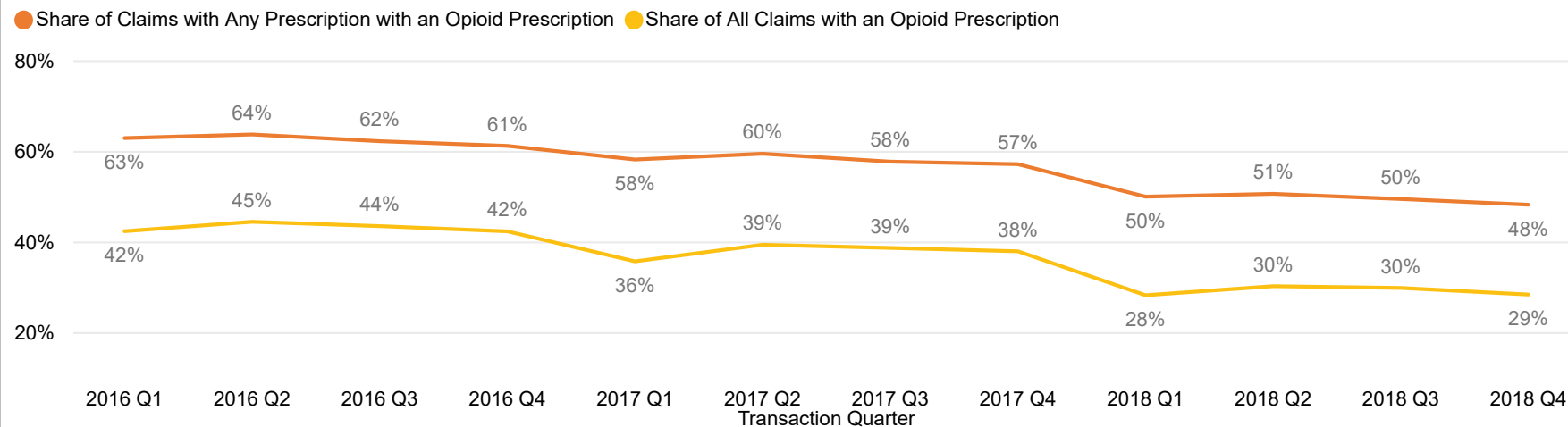
Growth Rank	Therapeutic Group	Therapeutic Group Code	Percentage Point Change in Medical Payment Share	Pharmaceutical Payment Share (CY2018)	Pharmaceutical Transaction Share (CY2018)	Paid per Transaction (\$) (CY2018)
1	Anticonvulsants	72	1.46	5.90%	3.10%	\$138
2	Antidiabetics	27	0.40	0.99%	0.20%	\$357
3	Antivirals	12	0.36	0.82%	0.06%	\$1,037
4	Psychotherapeutic and Neurological Agents - Misc.	62	0.35	0.98%	0.11%	\$637
5	Antiasthmatic and Bronchodilator Agents	44	0.30	0.89%	0.23%	\$276
6	Anticoagulants	83	0.25	0.58%	0.13%	\$337
7	Hematological Agents - Misc.	85	0.22	0.60%	0.05%	\$915
8	Endocrine and Metabolic Agents - Misc.	30	0.21	0.44%	0.03%	\$1,170
9	Cardiovascular Agents - Misc.	40	0.18	0.78%	0.08%	\$664
10	Ophthalmic Agents	86	0.14	0.46%	0.52%	\$65
Total				12.44%	4.52%	

Report 8 – Prescriptions and Payments for Opioids (2016 - 2018)

A - Claims with Any Opioid Prescription



B - Medical Payments for Claims with Any Opioid Prescription

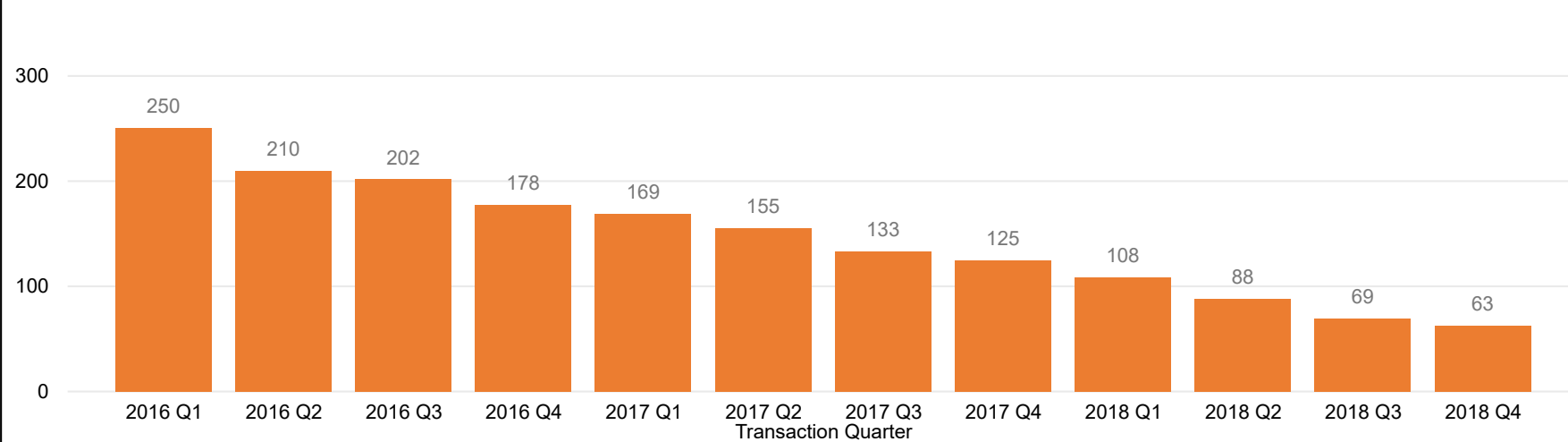


Insights

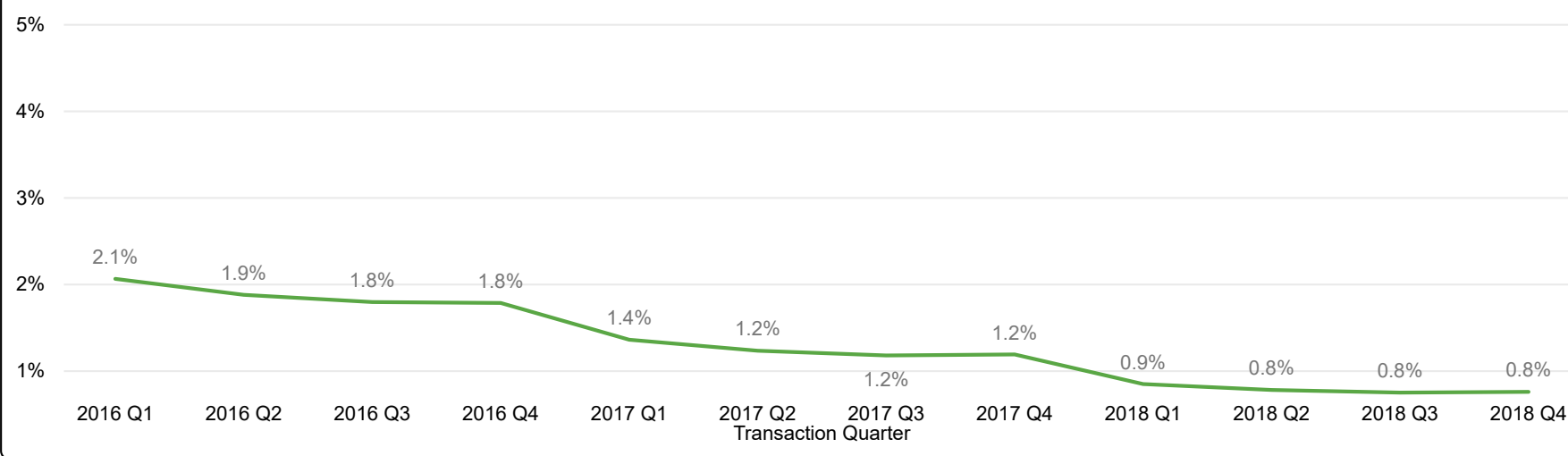
- The share of all claims with at least one opioid prescription declined significantly by 43% from early 2016 to late 2018. Even among claims with drug prescriptions, those with at least one opioid prescription declined by 38%.
- Despite sharp decreases in the share of claims involving opioid prescriptions, these claims incurred a disproportionately higher share of medical payments.

Report 9 – Average Doses of Opioids Prescribed and Concurrent Use of Opioids and Sedatives

A - Opioids Morphine Milligram Equivalents (MME) per Claim



B - Percentage of Claims Involving Concurrent Use of Opioids and Sedatives



Insights

- The average opioids MME per claim decreased sharply by 75% in the last quarter of 2018 compared to the first quarter of 2016, suggesting that injured workers have been getting significantly lower doses of opioids.
- The Centers for Disease Control and Prevention (CDC) recommends that physicians avoid prescribing opioids and sedatives concurrently because research has shown using these two drug classes simultaneously increased the risk of fatal overdose. Prior WCIRB research also showed that claims involving high-risk opioid use* were about five times more likely to concurrently use both drugs. Between early 2016 and late 2018, claims involving use of opioids and sedatives concurrently have declined by about two-thirds, which suggests less high-risk use of opioids in 2018.

* High-risk opioid use was defined as 50 MME or more per day for at least 30 consecutive days.

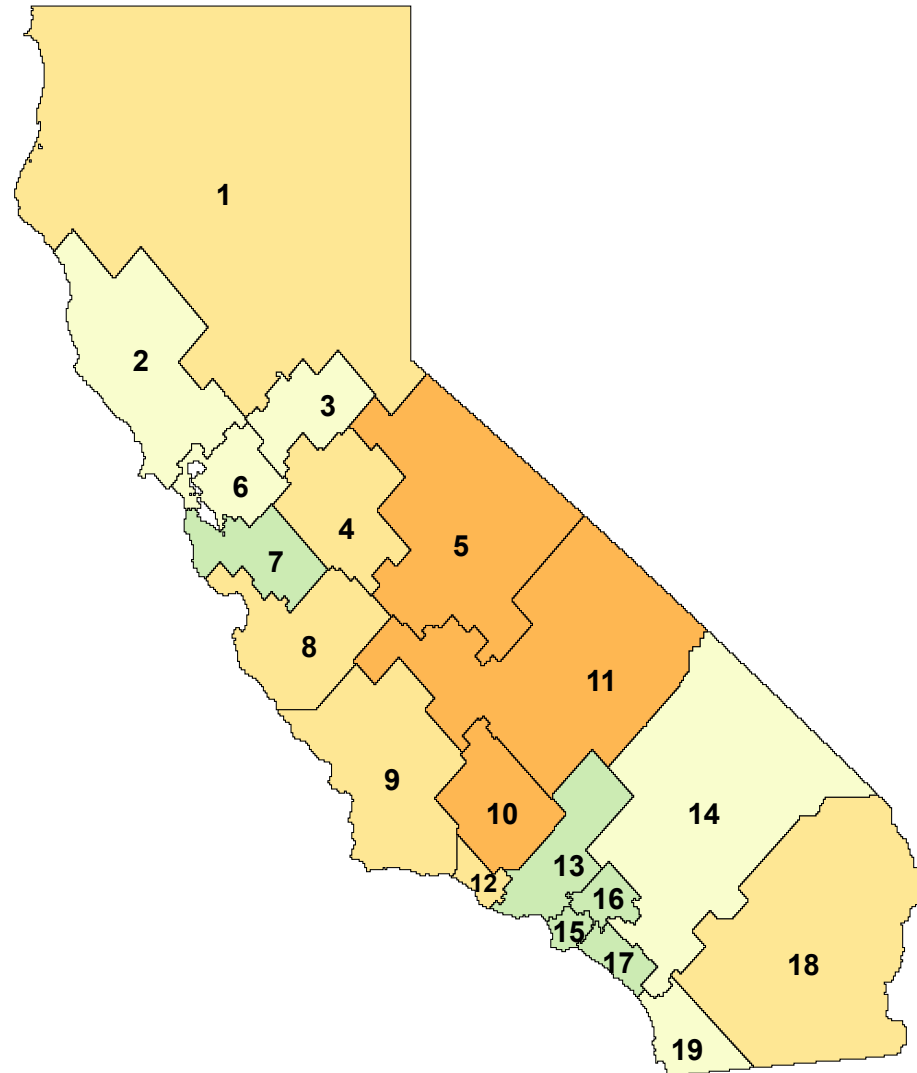
Report 10 – Regional Variations in the Share of Claims Involving Opioid Prescriptions (2016*)

Share of Claims Involving Opioid Prescriptions

- 12.5% - 15.0%
- 15.0% - 17.5%
- 17.5% - 20.0%
- 20.0% - 22.5%

Regions

- 01 - Yuba City / Redding / Far North
- 02 - Sonoma / Napa
- 03 - Sacramento
- 04 - Stockton / Modesto / Merced
- 05 - Fresno / Madera
- 06 - Bay Area
- 07 - Peninsula / Silicon Valley
- 08 - Santa Cruz / Monterey / Salinas
- 09 - SLO / Santa Barbara
- 10 - Bakersfield
- 11 - Tulare / Inyo
- 12 - Ventura
- 13 - Santa Monica / San Fernando Valley
- 14 - San Bernardino / West Riverside
- 15 - LA / Long Beach
- 16 - San Gabriel Valley / Pasadena
- 17 - Orange County
- 18 - Imperial / Riverside
- 19 - San Diego



Insights

- The Fresno/Madera, Bakersfield and Tulare/Inyo areas had the highest share of claims involving opioid use in 2016. Conversely, the Peninsula/Silicon Valley area and Los Angeles Basin had the lowest share.

* The latest calendar year that the WCIRB has the completed geo-located claims in the medical transaction data.

Appendix

All reports:

- Based on WCIRB medical transaction data with transaction dates from January 1, 2016 through December 31, 2018. The medical transaction data does not include: (a) medical payments made directly to injured workers; and (b) payments made to any known third party who may be assigned medical management.

Reports 4-5:

- Denominators for the medical payments share and transaction share are for all medical procedure codes.

Report 6:

- Categories for the Medical-Legal evaluations are as follows:
 - ML100 - Missed appointment for a comprehensive or follow-up medical-legal evaluation
 - ML101 - Follow-up medical-legal evaluation
 - ML102 - Basic comprehensive medical-legal evaluation
 - ML103 - Complex comprehensive medical-legal evaluation
 - ML104 - Complex comprehensive medical-legal evaluation involving extraordinary circumstances
 - ML105-106 - Fees for medical-legal testimony or supplementary medical-legal evaluation

Report 7:

- Procedure code sets are the aggregated grouping of similar medical procedures based on the Current Procedural Terminology (CPT) subsections.
- Therapeutic group codes are the higher level grouping of therapeutic classes. Denominators used for the payment and transaction shares are pharmaceutical payments and transactions.

Reports 8-9:

- Zhang J. and Yu Y. [Early Indicators of High-Risk Opioid Use and Potential Alternative Measures](#). WCIRB, 2019.

Reports 8-9 (cont.):

- Dowell D., Haegerich T.M. and Chou R. [CDC Guideline for Prescribing Opioids for Chronic Pain - United States, 2016](#). MMWR Recomm Rep. 2016 Mar 18;65(1):1-49.
- The Dr. Bree Collaborative - Opioid Prescribing Metrics, July 2017.

Report 8C:

- Morphine Milligram Equivalents (MME) were calculated excluding the top 5th percentile of the pharmaceutical transactions based on the reported Quantity for each calendar year quarter.

Report 10:

- Claims involving opioid prescriptions are mapped to an employer's location based on the [2018 WCIRB Geo Study](#). The study located approximately 53% of all claims.

Conditions and Limitations

The WCIRB completed this study using medical transaction data, which reflects approximately 92% of the insured employers in California. The following should be noted:

1. This report reflects a compilation of individual insurer submissions of medical transaction data to the WCIRB. While an insurer's medical data submissions are regularly checked for consistency and comparability with other data submitted by the insurer as well as with other insurers' medical data submissions, the source information underlying each insurer's data submission is not verified by the WCIRB.
2. The study is based solely on the experience of insured employers. No self-insured employer experience is reflected in the study.

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