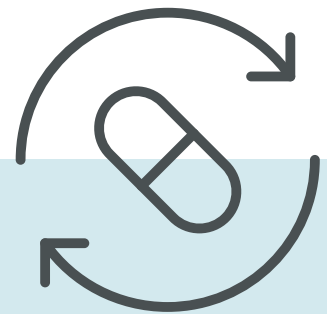


OCTOBER 2024

PRESCRIPTION DRUG TRENDS



IN PENNSYLVANIA WORKERS' COMPENSATION
2012-2022

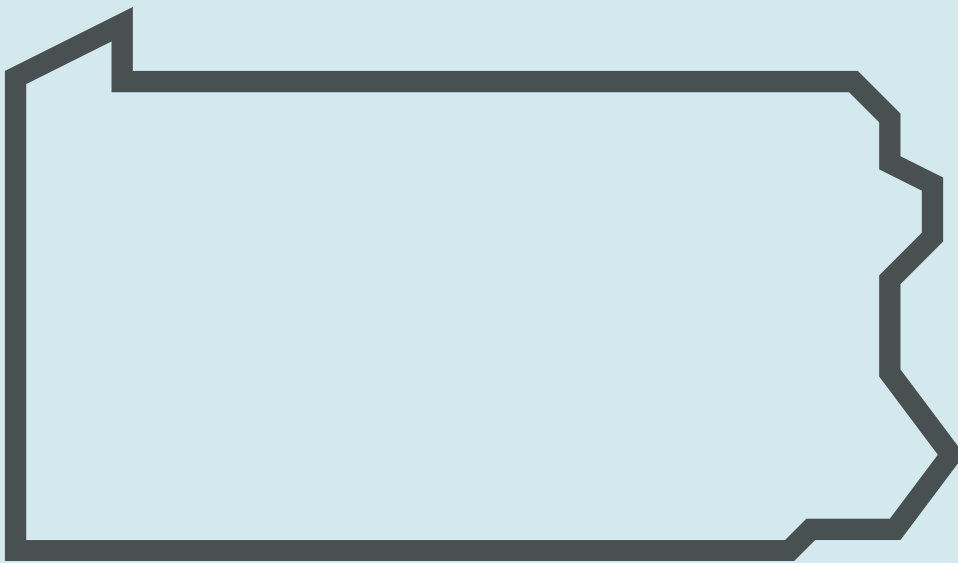




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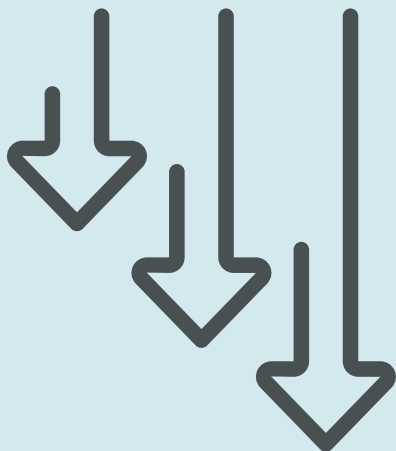


INTRODUCTION



ABOUT THIS REPORT

This report investigates trends in workers' compensation prescription drug payments in Pennsylvania between 2012 and 2022. Costs related to prescription drugs in the workers' compensation system are of significant concern for employers, insurers, and policymakers in Pennsylvania. This report aims to investigate the current patterns in prescription drug usage among workers' compensation claims across the commonwealth. Graphics and charts within refer to data from the Pennsylvania Medical Data Call.



TREND: OVERALL DECREASE

The first trend explored in this report is the noticeable overall decrease in claims involving a drug prescription. Opioid claims (any claim that resulted in at least one opioid prescription) were an important contributor to this decrease. Opioids are an extremely effective pain reliever often prescribed following serious injury or operation, but they have been found to be extremely addictive.

Through the course of this report's study period, the Pennsylvania Department of Health has acknowledged an "opioid crisis" based on the state's disproportionate opiate-related death toll.



TREND: INCREASE AMONG GENERICS



Pennsylvania workers compensation claims saw an increase in the prescription of generic drugs. Generic drugs tend to be more affordable than their brand-named counterparts; however, they are expected to be just as safe and effective because they undergo the same testing by the FDA.

TREND: INCREASE AMONG TOPICALS



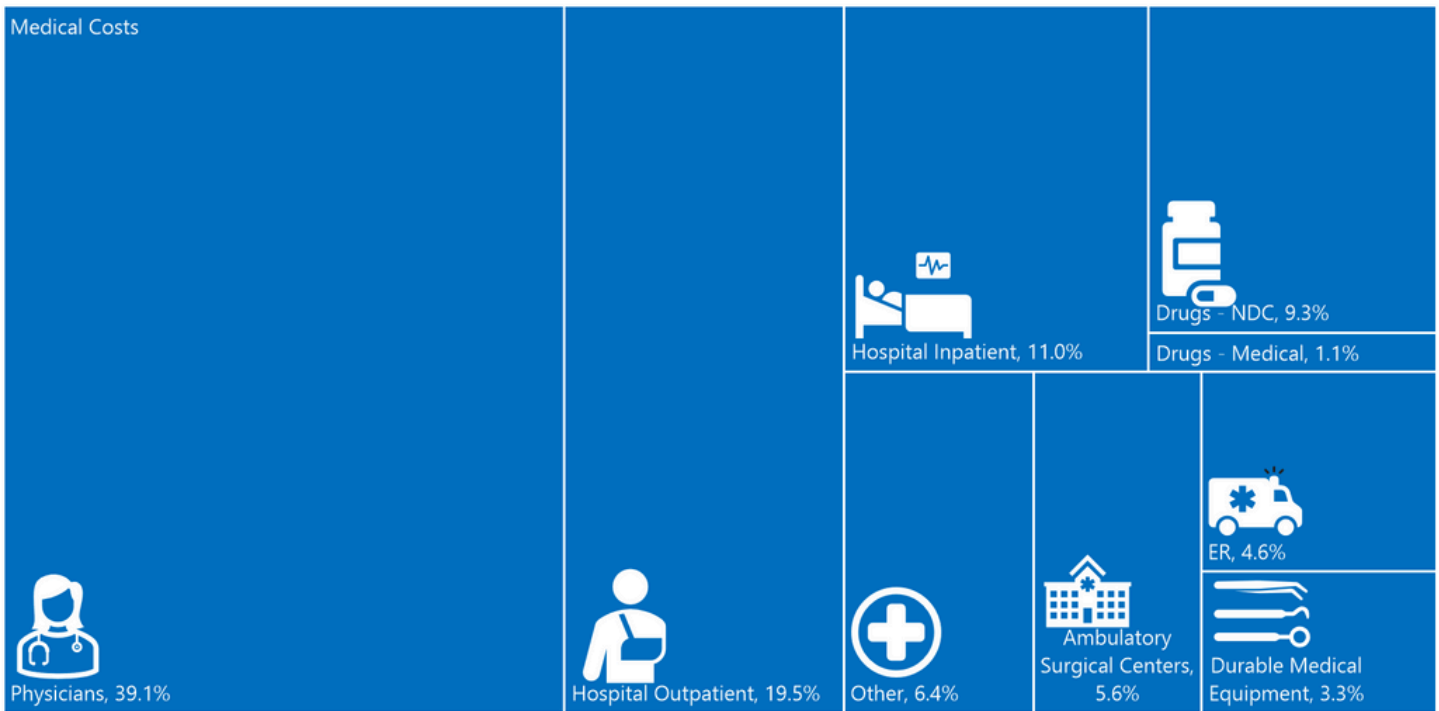
From 2012 to 2022, topical drug options became more popularly prescribed. A topical drug is a cream, gel, or solution that is applied to and absorbed through the eyes, ears, or skin. Topical drugs are on average more expensive per unit than other types of drugs. The relationship between topicals and claim drug expenses is explored in depth in the latter portion of this report.



USAGE & COST

PA MEDICAL COST DISTRIBUTION - 2022

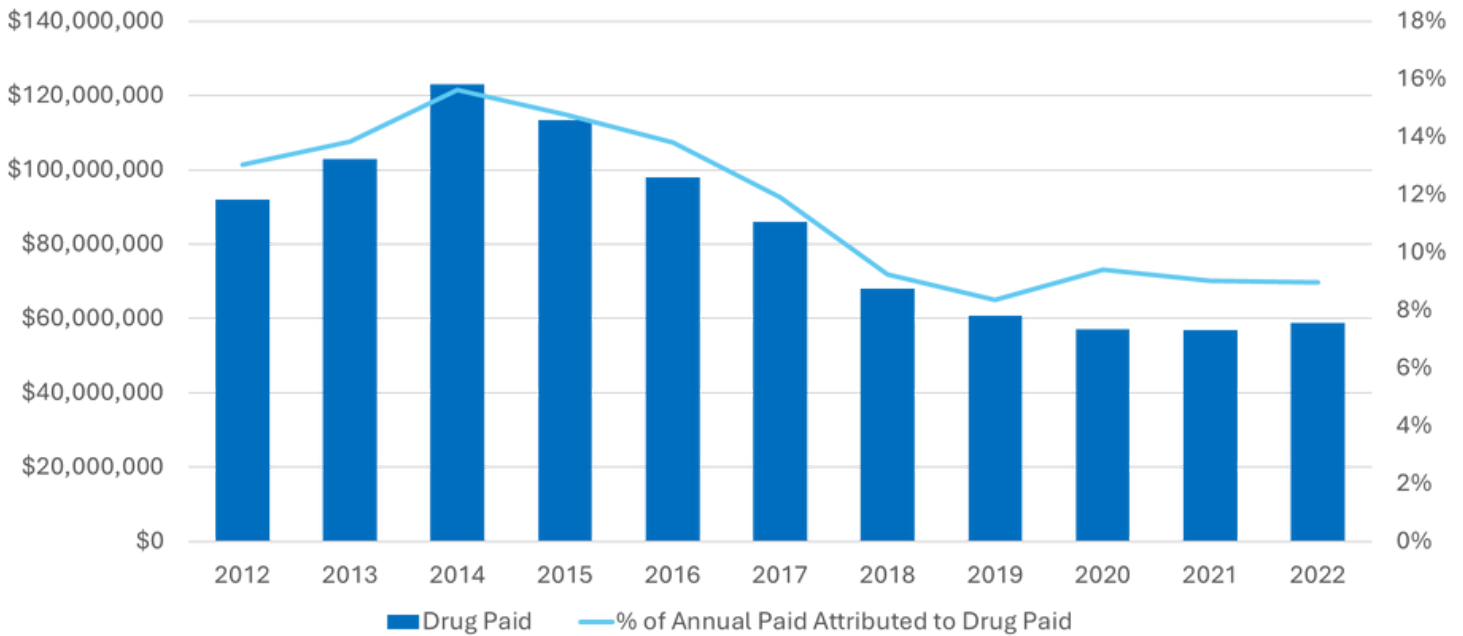
This figure displays the distribution of all workers compensation medical expenses in Pennsylvania during 2022.





PRESCRIPTION DRUG PAYMENT AS A % OF ALL MEDICAL PAYMENTS

Overall trend shows that drug payments accounted for its largest dollar amount and percentage of medical payment in 2014 and has since dropped and flattened to about 9% annually.

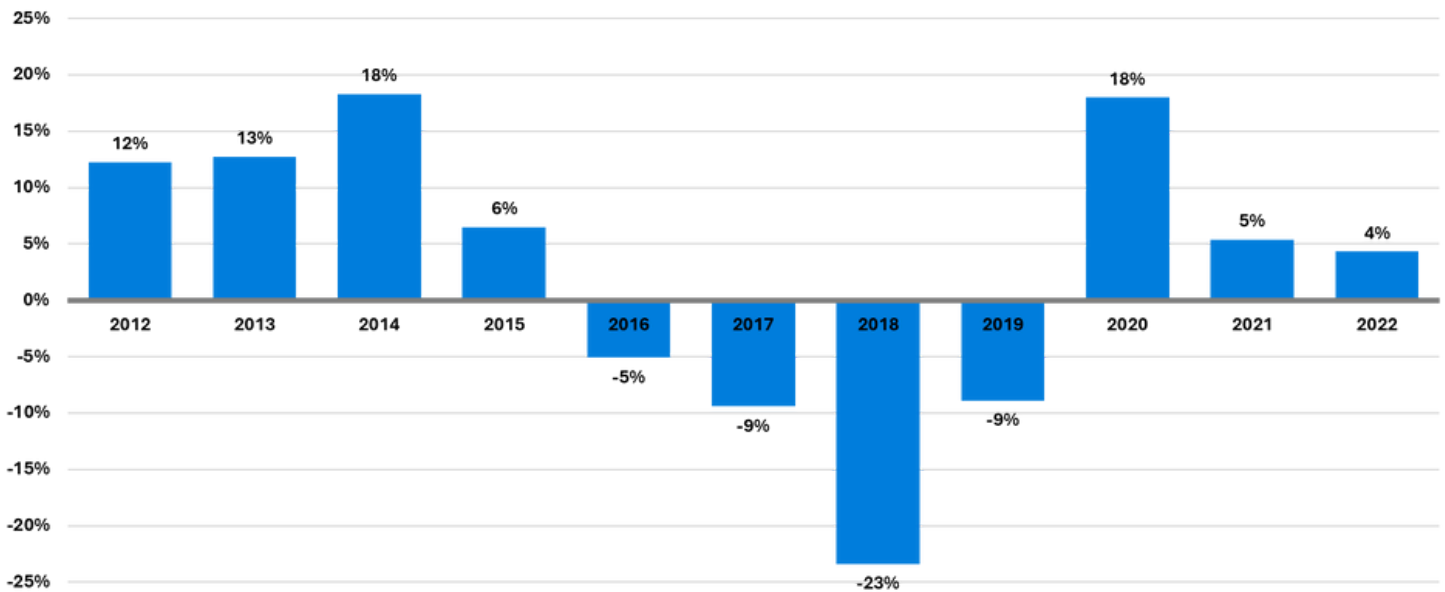


For service year 2022, there was \$656 million in medical paid in PA workers comp, of which nearly \$59M was drugs. Drug costs make up roughly 10.4% of total cost with medical drugs (drugs billed without an NDC code) accounting for only 1.1%. Prescription drugs are uniquely identified by a national drug code (NDC). This report provides greater detail on payments for prescription drugs reported with an NDC, whether the drugs were provided in a pharmacy, physician’s office, hospital, or other place of service. Payments are categorized as drugs if the code reported on the transaction is an NDC. Payments for drugs can also be reported using codes other than NDCs, such as revenue codes, HCPCS codes, and other state-specific procedure codes. We refer to these payments as medical drugs. The results in this report moving forward are based only on payments reported with an NDC.



CHANGE IN PRESCRIPTION DRUG PAYMENTS - % CHANGE YEAR OVER YEAR

Several policy changes taking affect in 2014 as well as large decreases in opioid prescribing contributed to the reductions in prescription payments and utilization in Pennsylvania starting in 2016. The increase starting in 2020 is largely attributed to topicals.



Pennsylvania implemented House Bill 1846 of 2014 regulating reimbursement for prescription drugs to 110% AWP (Average Wholesale Price) on a per unit basis. Physicians seeking reimbursement must include the original NDC code on all bills. Physicians may not seek reimbursement greater than 110% AWP of the original NDC code. Repackaged NDC codes may not be submitted for reimbursement. The bill also limited the days supply allowed for drugs dispensed by any outpatient provider (including physicians) but not including pharmacies. Multiple providers were restricted for billing for the same drug on the same claim. The bill also limited any outpatient provider (including physicians) but not including pharmacies from seeking reimbursement for over-the-counter drugs.

We observed there was a temporary increase in the number of drugs prescribed at the peak of the pandemic in 2020 since patients could not utilize non-drug alternatives such as physical therapy. After this brief increase, the number of drugs prescribed returned to pre-pandemic levels.

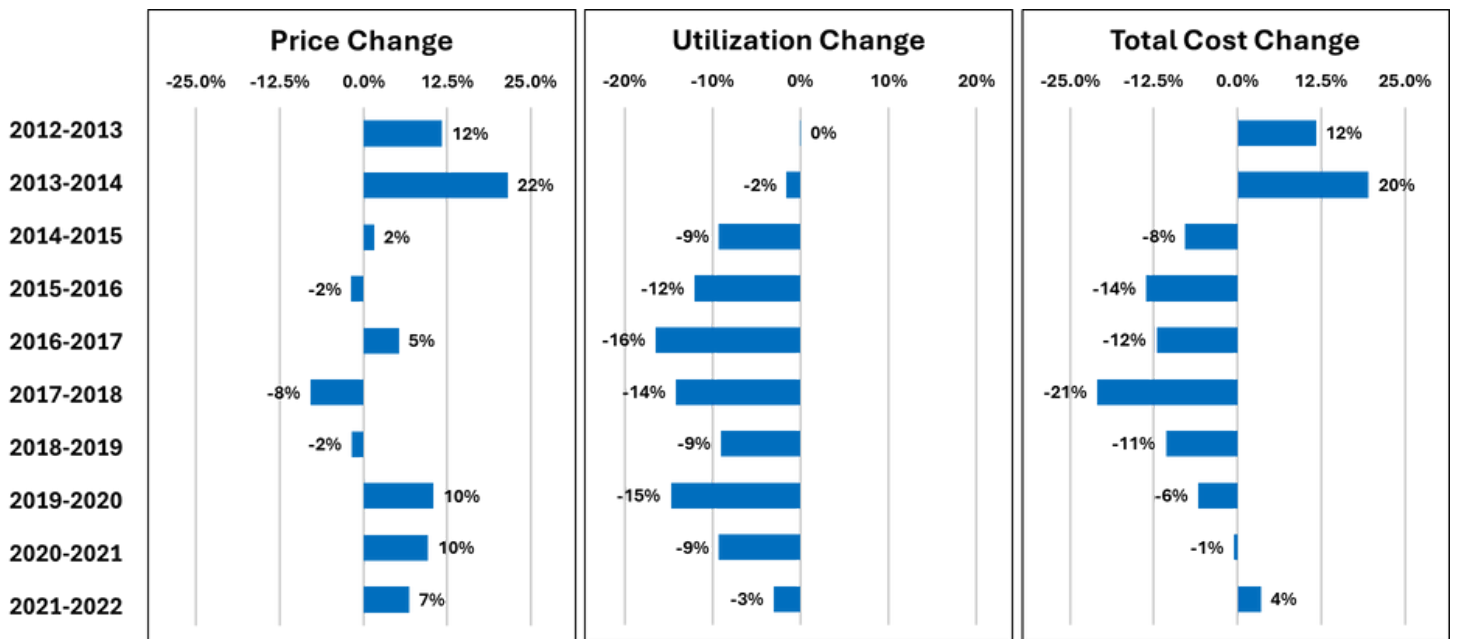


PRICE, UTILIZATION & TOTAL COST CHANGE

The turn in **price** as of 2019 is partially due to topicals, and due to other market factors causing drug price increases, such as increases in AWP.

Utilization has been in constant decline since 2012. Doctors are prescribing less drugs in general over the past decade due to medical treatment shifts to non-drug options, such as physical therapy.

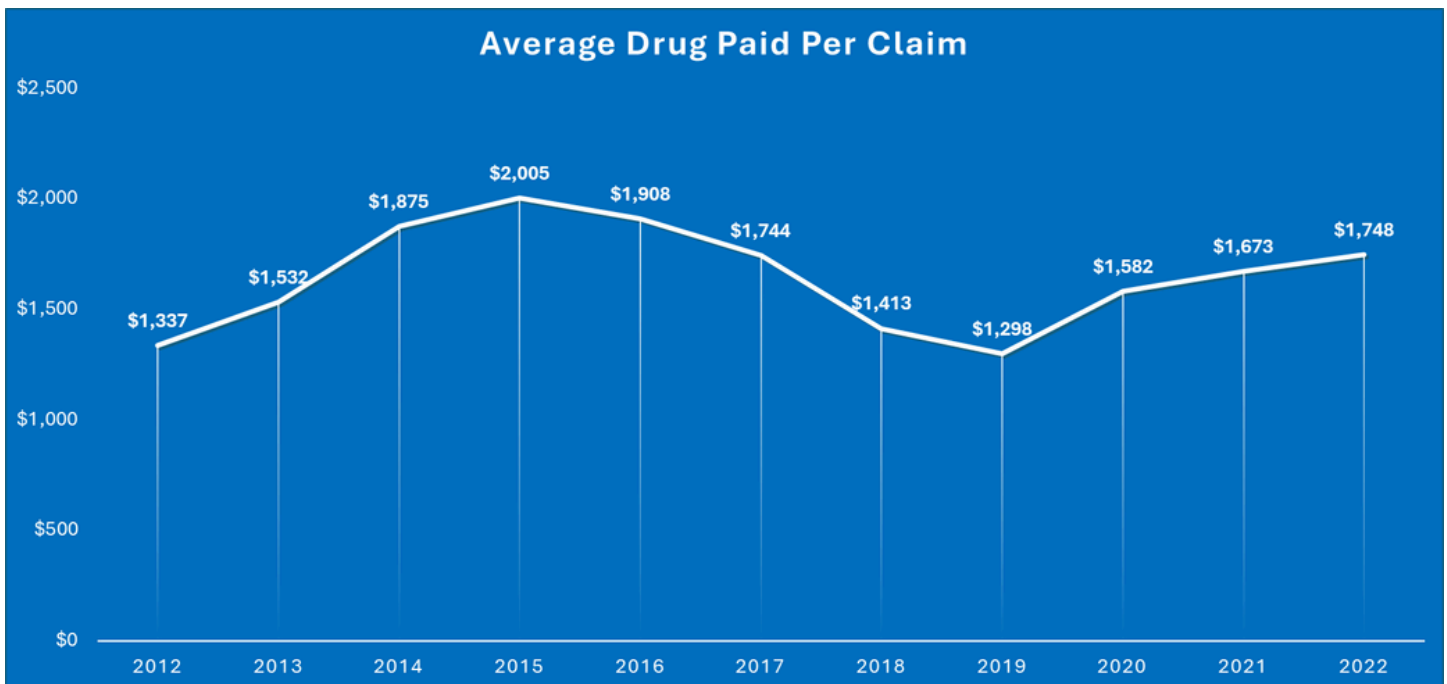
Total cost began falling after 2014. This is the year we see several commonly prescribed name brand drugs used in workers' compensation becoming available in a generic form.





DRUGS PAID PER CLAIM

After peaking in 2015, we start to see the benefits of the reform (HB1846) as well as nationwide decreasing prescribing trends starting in 2016. The rate begins to increase again starting in 2020, mostly due to high cost topicals.

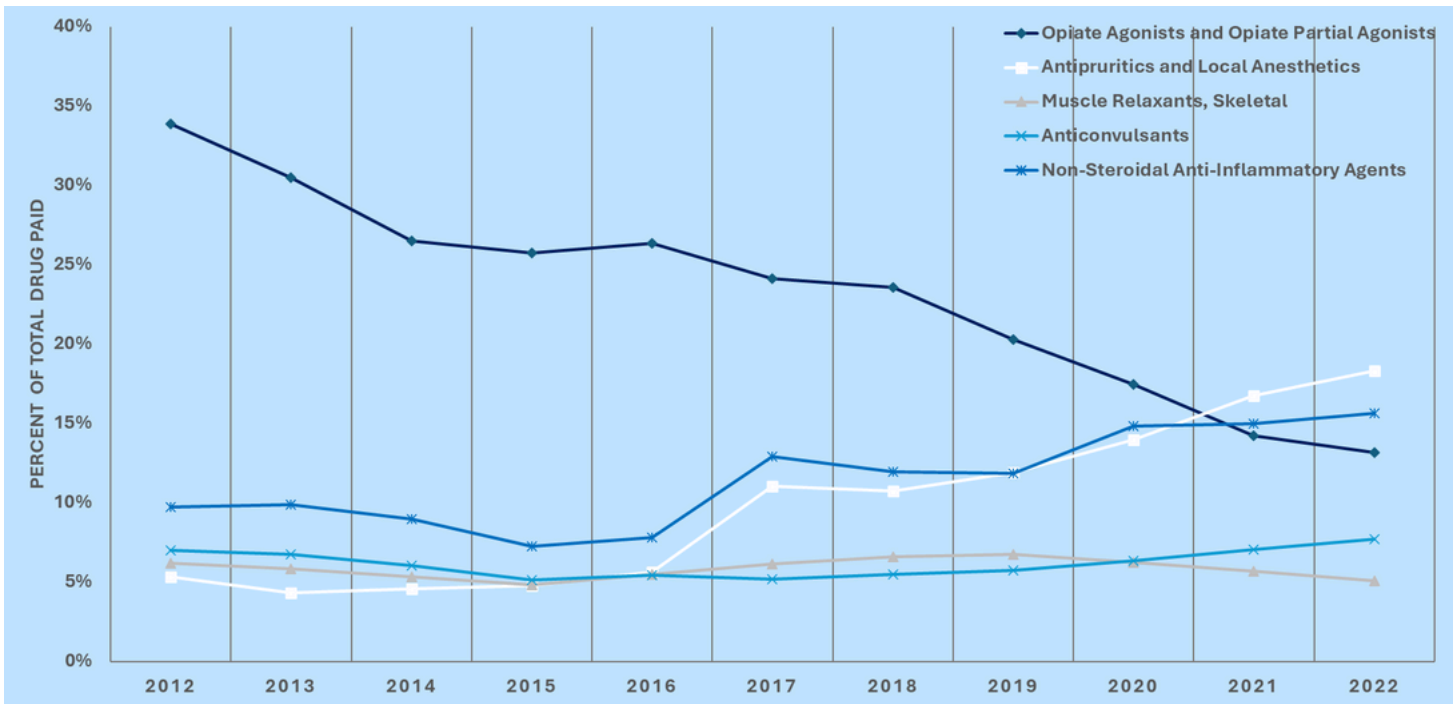




PERCENT OF TOTAL DRUGS PAID

The most significant decrease was in opiate agonists from 34% and \$31.1 million in 2012 to 13% and \$7.7 million in 2022.

The most notable increase was in Antipruritics and Local Anesthetics from 5% and \$4.9 million in 2012 to 18% and \$10.8 million in 2022.



An opiate agonist is a form of opioid that binds to neurons and affects their receptors. They are used as treatment for extreme pain. Examples include oxycodone, morphine, heroin, fentanyl, and methadone.

Antipruritics are used to treat skin itching or swelling. Examples include calamine, benadryl, and hydroxyzine . A local anesthetic is used to stop nerves in a specific part or parts of the body from sending signals to your brain. This causes numbness in the targeted area. Examples include lidocaine, pramoxine, or benzocaine.

A skeletal muscle relaxant is used to limit muscle function in cases where a person is experiencing muscle pain related to strain or spasms. Examples include diazepam, cyclobenzaprine, baclofen, and tizanidine.

Anticonvulsants are often prescribed to limit epileptic attacks or other diseases causing convulsion. They can also be used to ease nerve pain or migraine headaches. Examples include clobazam, clonazepam, and oxcarbazepine.

Non-Steroidal Anti-Inflammatory Agents (NSAIDs) are used to reduce fever, pain, and general inflammation. Examples include ibuprofen, naproxen, diclofenac, and aspirin.



TOP 30 DRUGS FOR SERVICE YEAR 2022

Paid Share Service Year 2022	Drug Name	AHFS Therapeutic Class	Brand/Generic Status	Change in Rank 2022	Rank By Service Year				
					2022	2021	2020	2019	2018
13.0%	Diclofenac Sodium	Central Nervous System Agents (68%) Skin & Mucous Membrane Agents (32%)	Generic for Voltaren, Pennsaid	-	1	1	1	2	5
6.4%	Lidopro Patch	Skin & Mucous Membrane Agents	Brand	+2	2	4	15	14	14
6.0%	Pregabalin	Central Nervous System Agents	Generic for Lyrica	-1	3	2	2	N/A	N/A
5.5%	Lidocaine	Skin & Mucous Membrane Agents	Generic for Xylocaine	-1	4	3	3	3	3
4.5%	Cyclobenzaprine HCL	Muscle Relaxants, Skeletal	Generic for Flexeril	+1	5	6	6	13	13
3.7%	Oxycontin	Opiate Agonists	Brand	-1	6	5	4	1	2
3.4%	Gabapentin	Anticonvulsants	Generic for Neurontin	-	7	7	5	5	4
2.9%	Celecoxib	Non-Steroid/Anti-Inflam. Agent	Generic for Celebrex	-	8	8	8	12	12
2.2%	Percocet	Opiate Agonists	Brand	+1	9	10	9	8	9
1.8%	Meloxicam	Non-Steroid/Anti-Inflam. Agent	Generic for Mobic, Vivlodex	+2	10	12	11	6	8
1.6%	Terocin	Skin & Mucous Membrane Agents	Brand	-	11	11	10	7	10
1.6%	Duloxetine HCL	Antidepressants	Generic for Cymbalta	+1	12	13	13	10	11
1.5%	Zylotrol	Skin & Mucous Membrane Agents	Brand	-	13	N/A	N/A	N/A	N/A
1.3%	Ondansetron HCL	Antiemetics	Generic for Zofran	+2	14	16	16	16	N/A
1.1%	Oxycodone HCL	Opiate Agonists	Generic for Oxycontin (if extended release)	-1	15	14	12	11	6
1.1%	Oxycodone HCL-Acetaminophen	Opiate Agonists	Generic for Percocet	-1	16	15	14	9	7
1.0%	Baclofen	Muscle Relaxants, Skeletal	Generic for Lioresal, Gablofen	+1	17	18	17	15	16
1.0%	Metaxalone	Muscle Relaxants, Skeletal	Generic for Skelaxin	-1	18	17	19	18	20
1.0%	Nulido	Skin & Mucous Membrane Agents	Brand	-10	19	9	7	27	107
0.9%	Belbuca	Opiate Partial Agonists	Brand	-	20	20	23	39	64
0.8%	Botox	Serums, Toxoids, Vaccines	Brand	-2	21	19	25	24	49
0.8%	Tizanidine HCL	Muscle Relaxants, Skeletal	Generic for Zanaflex	-1	22	21	20	20	21
0.7%	Nucynta	Opiate Agonists	Brand	+1	23	24	29	41	24
0.6%	Lidoderm	Skin & Mucous Membrane Agents	Brand	+2	24	26	24	23	27
0.6%	Morphine Sulfate	Opiate Agonists	Generic for Avinza, Kadian, Ms Contin	-3	25	22	21	21	15
0.6%	Hydrocodone Bitartrate-Acetaminophen	Opiate Agonists	Generic for Vicodin	-3	26	23	18	19	19
0.5%	Eliquis	Coagulants & Anticoagulants	Brand	-	27	N/A	N/A	N/A	N/A
0.5%	Lidopro	Skin & Mucous Membrane Agents	Brand	-	28	N/A	N/A	N/A	N/A
0.5%	Tramadol HCL	Analgesics/Antipyretics	Generic for Conzip, Ultram	-4	29	25	22	17	18
0.5%	Topiramate	Anticonvulsants	Generic for Topamax	-2	30	28	26	25	25



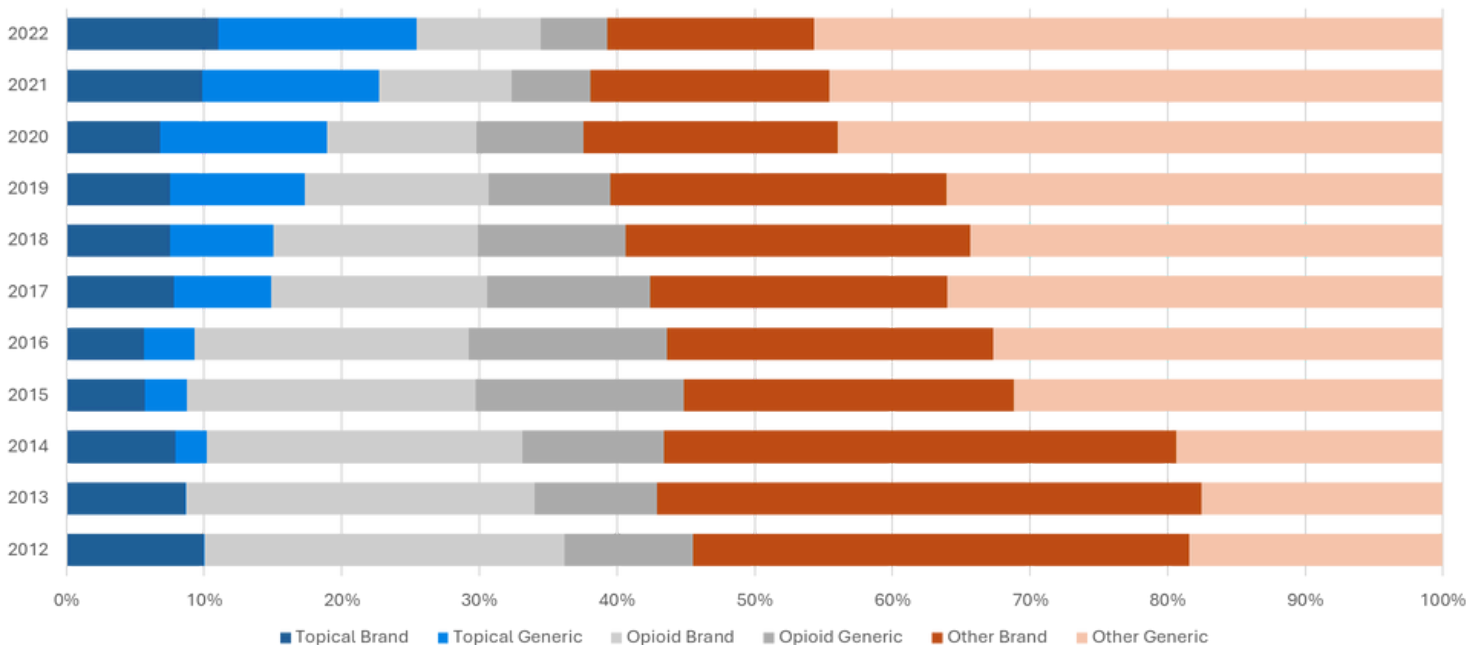
GENERICS

BRAND VS GENERIC PAID AMOUNTS BY DRUG TYPE

Topicals grew to account for nearly 25% of all drug paid amounts between 2012 and 2022. It wasn't until 2014 that Pennsylvania saw generic options being prescribed for topicals. In the 8 years following, generic topical options became a larger contributor to gross drug paid amounts than brand counterparts.

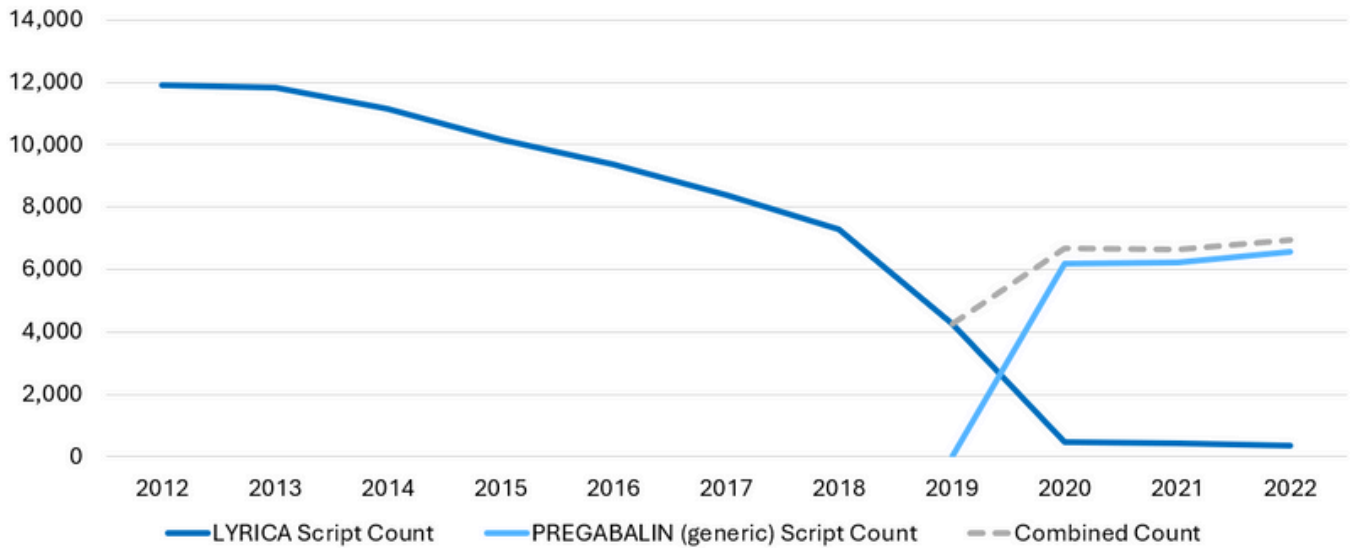
On the other hand, Opioids went from making up 35% of gross drug paid in 2012 to just 14% by 2022. While the amount paid on opioids showed an obvious downward trend, the distribution of brand opioid to generic opioid remained largely the same.

Other types of drugs contributed to a similar percentage of drug paid through the decade, but generic drugs more than doubled in share of total drug paid.



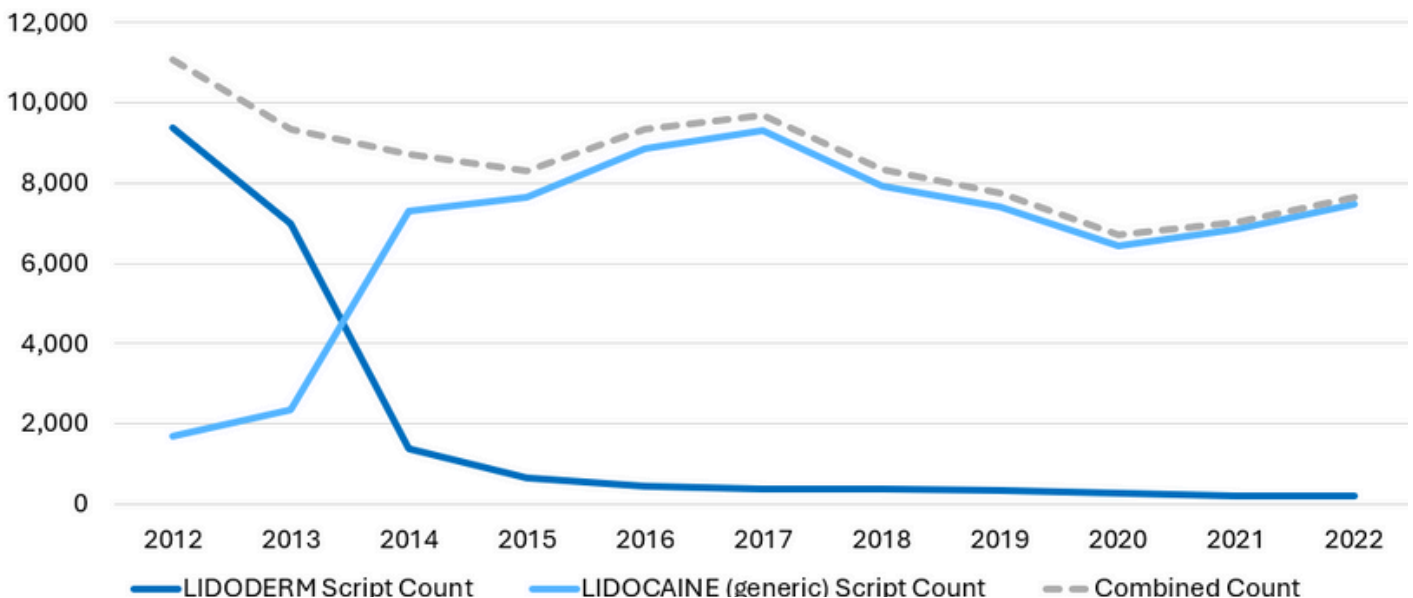


LYRICA® AND PREGABALIN PRESCRIPTION COUNT



Lyrice went off patent in 2019 and its generic version Pregabalin began to be prescribed. Lyrice is an anticonvulsant, and it is used to treat nerve pain.

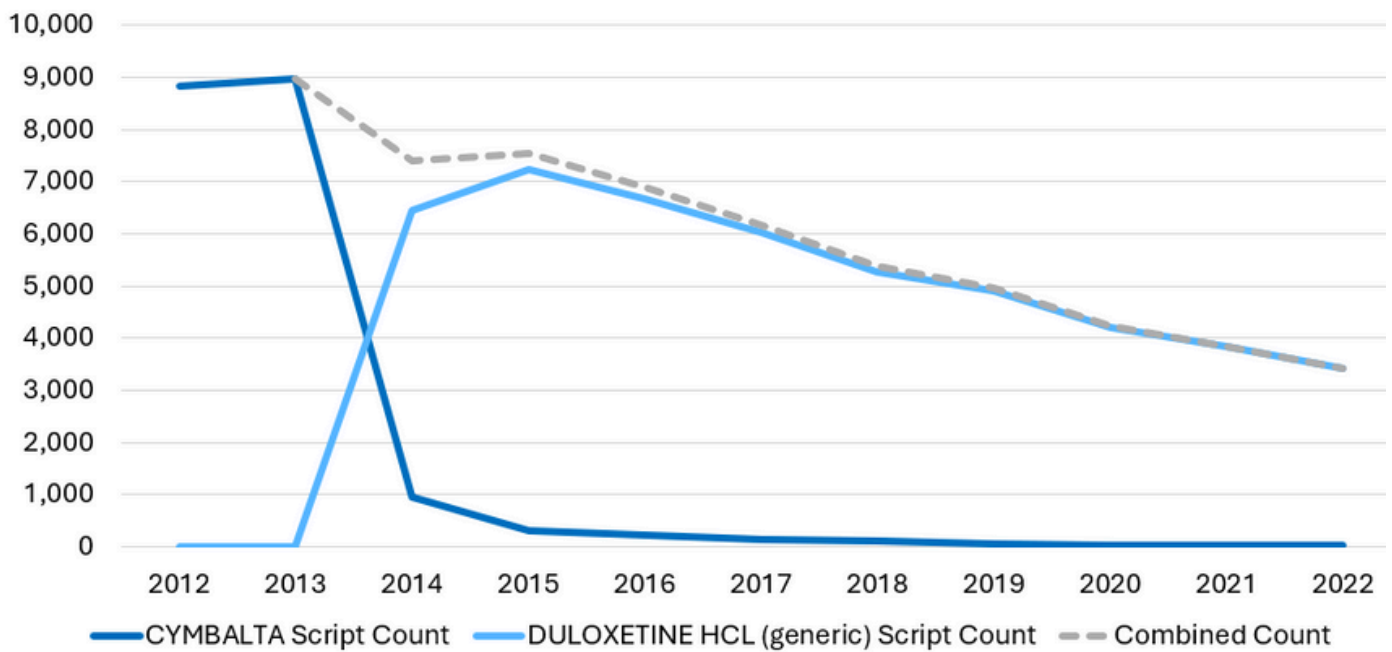
LIDODERM® AND LIDOCAINE PRESCRIPTION COUNT



Lidoderm went off patent in 2013 and its generic version Lidocaine began to be prescribed. Lidoderm is a local anesthetic used to reduce itching and pain caused by inflammatory skin conditions.



CYMBALTA® AND DULOXETINE HCL PRESCRIPTION COUNT



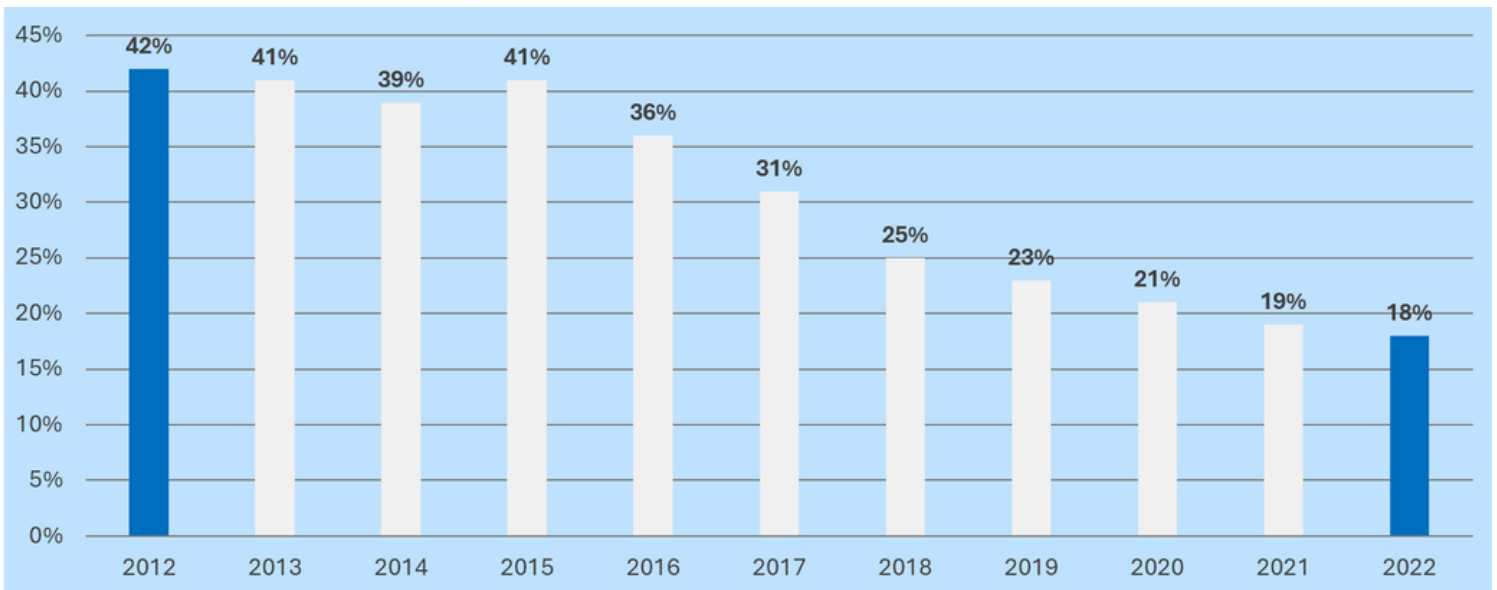
Cymbalta went off patent in 2014 and its generic version Duloxetine began to be prescribed. It is commonly used to treat depression and can alleviate nerve pain.



OPIOIDS

SHARE OF DRUG CLAIMS WITH AT LEAST ONE OPIOID PRESCRIPTION

In this decade, the gross number of prescriptions in workers comp claims per year fell to less than half of where it started. During this same time, opioids became 24% less commonly prescribed.

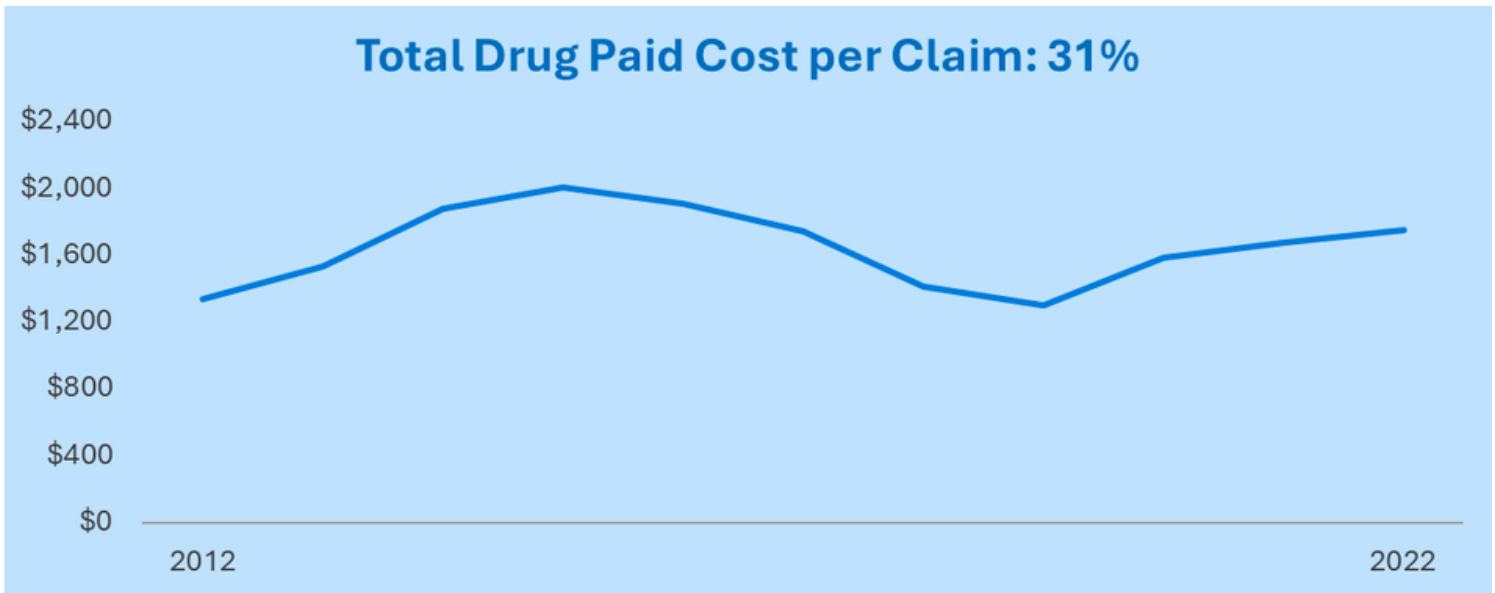




OPIOID USAGE IN WORKER'S COMPENSATION

Opioids are being prescribed less frequently, as **1 in 6** claims received an opioid prescription in 2012, while **1 in 20** claims received an opioid prescription in 2022.

Since 2012, cost per claim for non-opioid drugs is up 20%. The opioid cost per claim since 2012 increased 43%.

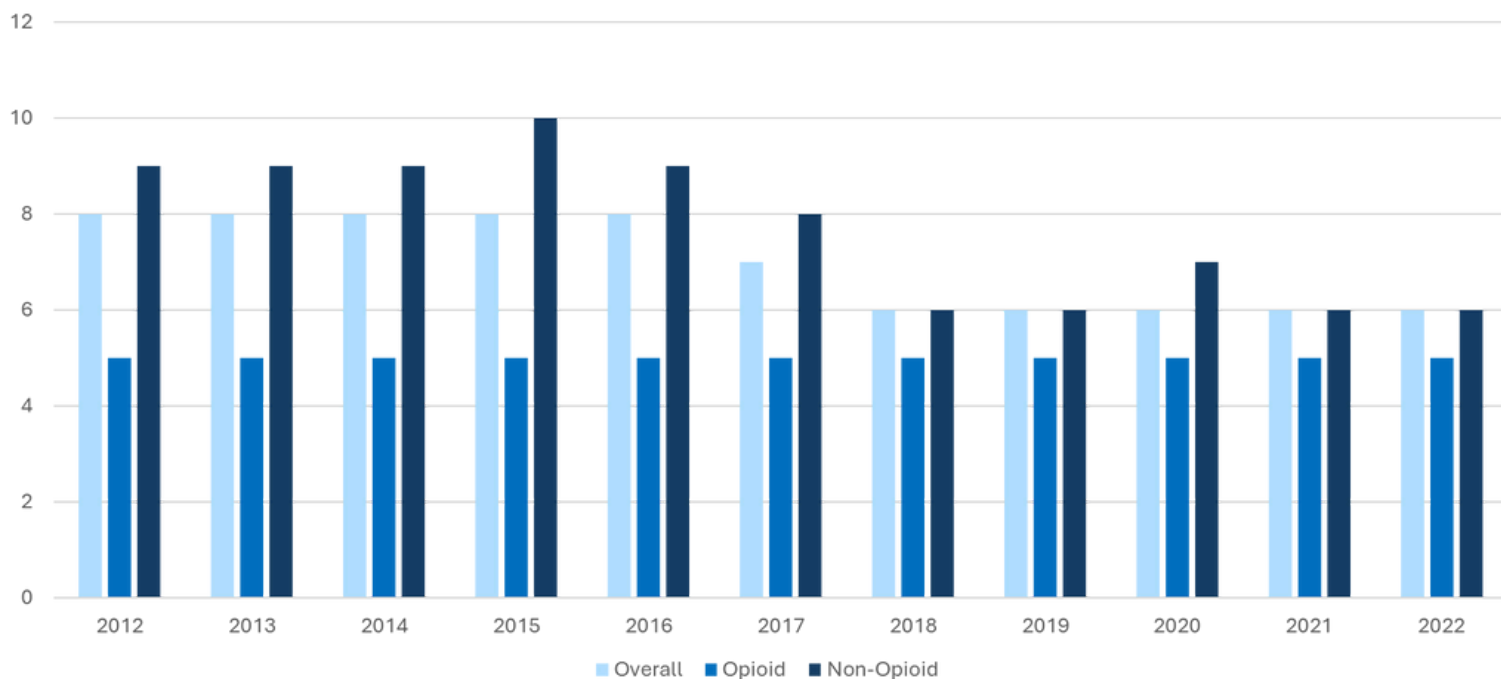




NUMBER OF PRESCRIPTIONS PER CLAIM

Claims across the board saw a decrease in script count per claim, but this break down shows that the change was contributed to by non-opioid claims as opioid script count stayed flat over the past decade.

We observed a 35% decrease in the number of pills per prescription in 2014 and since the average pills per prescription has remained around 67 pills.

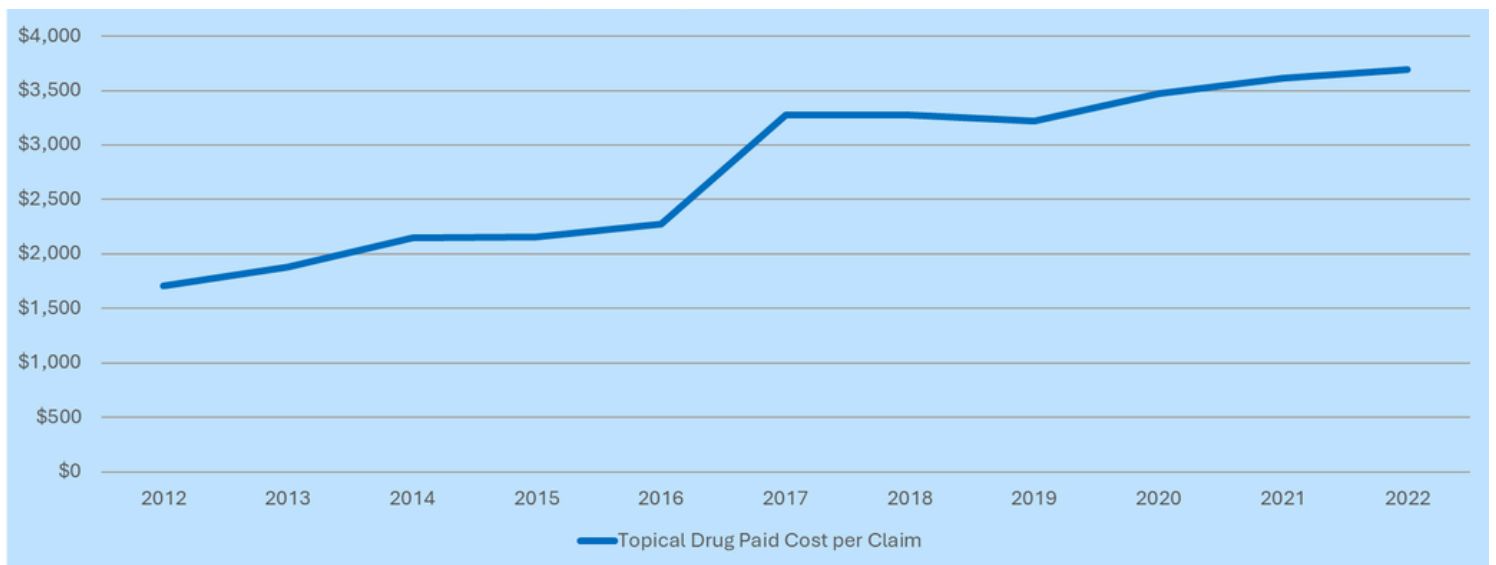




TOPICALS

A topical drug is a cream, gel, or solution that is applied to and absorbed through the eyes, ears, or skin. Topical drugs are on average more expensive per unit than other types of drugs.

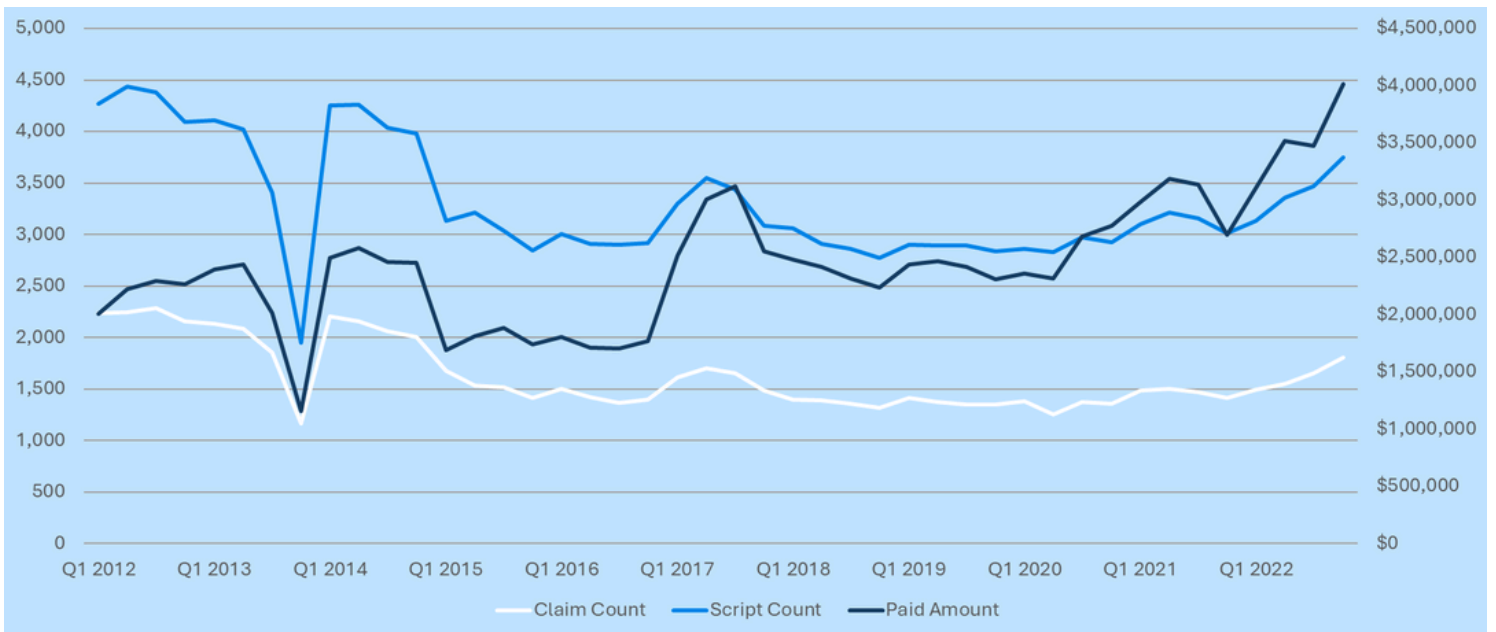
TOPICAL DRUG PAID COST PER CLAIM





TOPICAL AGENT TRENDS 2012-2022

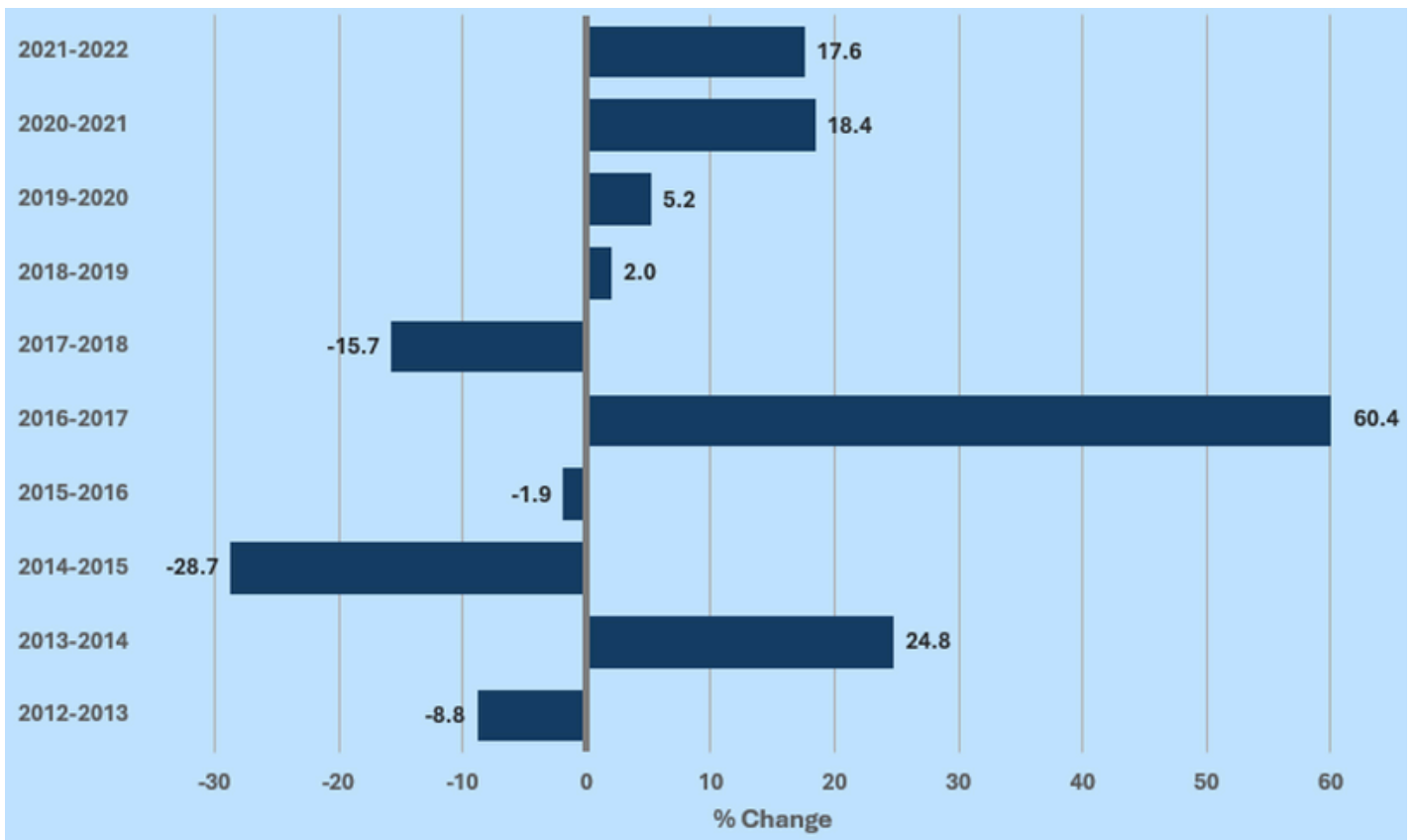
The paid amount for topical agents between 1st quarter 2012 and 4th quarter 2022 doubled.





TOPICAL AGENTS PAID AMOUNT

The paid amount for topical claims rose 60% from 2016 to 2017. In that same year, the script count for topicals increased only 14%.





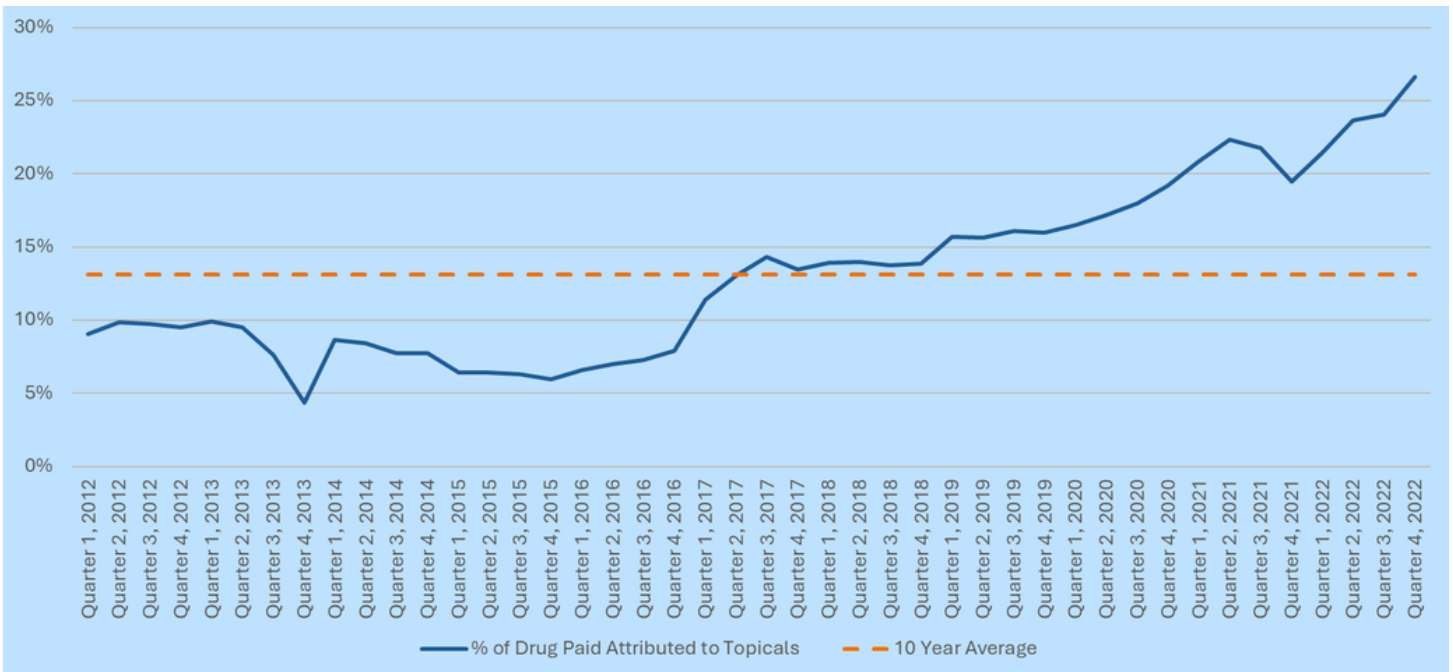
TOPICAL AGENTS VS OTHER PRESCRIPTION PRICE PER UNIT

This chart presents the top 10 dermatological agent drugs and top 10 drugs (excluding dermatological agents) for 2022 service dates in Pennsylvania. This comparison shows that dermatological agent drugs tend to have higher per unit costs compared to other commonly prescribed drugs. The average per unit cost for the top 10 dermatological agents is 617% higher than the average per unit cost of the top 10 drugs (excluding dermatological agents.)

Top 10 Topical Agents	Unit Price	Top 10 Drugs (excluding Topical Agents)	Unit Price
LIDOCAINE	\$8.21	GABAPENTIN	\$1.68
LIDOPRO PATCH	\$51.28	CYCLOBENZAPRINE HCL	\$5.75
DICLOFENAC SODIUM	\$11.02	DICLOFENAC SODIUM	\$4.74
NULIDO	\$8.21	MELOXICAM	\$3.49
TEROCIN	\$45.78	OXYCODONE HCL	\$1.02
LIDOPRO	\$4.33	PREGABALIN	\$6.80
ZYLOTROL	\$44.50	HYDROCODONE BITARTRATE-ACETAMINOPHEN	\$0.73
DICLOFENAC EPOLAMINE	\$13.35	IBUPROFEN	\$0.55
ZTLIDO	\$11.80	OXYCODONE HCL-ACETAMINOPHEN	\$1.29
LIDODERM	\$28.20	CELECOXIB	\$5.54



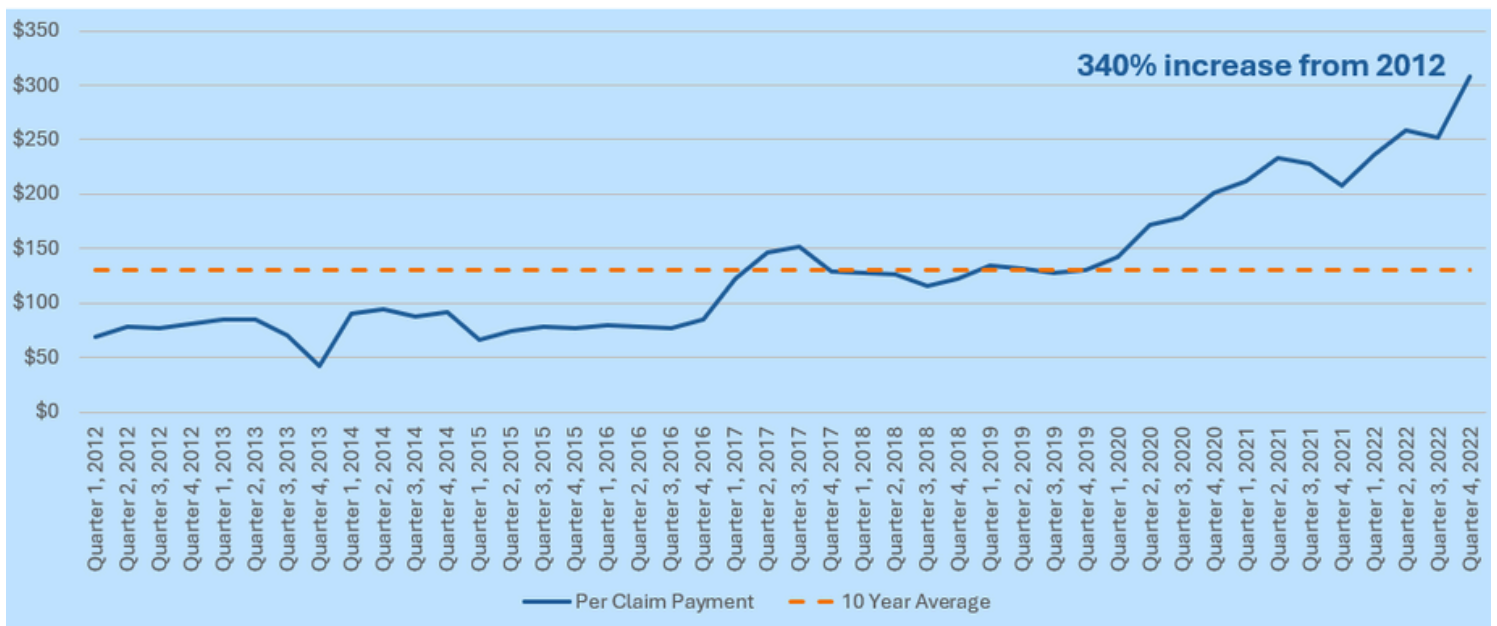
TOPICAL AGENTS - % PAYMENT SHARE OF ALL PRESCRIPTION PAYMENTS





TOPICAL AGENTS – PER-CLAIM PAYMENT PER ALL PRESCRIPTION DRUG CLAIMS

Topical agents paid per claim more than quadrupled over the decade





ABOUT

Founded in 1915, the Pennsylvania Compensation Rating Bureau (PCRB) is a nonprofit data collection organization serving as a trusted, essential, and objective resource that supports a healthy workers' compensation system for Pennsylvania. PCRB provides data-driven products and services that anticipate and respond to marketplace conditions and identify emerging trends, including accurate and valuable statistical and actuarially-based information, marketplace knowledge, and rating plans. PCRB also conducts innovative research, provides educational services, and engages in outreach that delivers knowledge to empower actionable decisions.



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