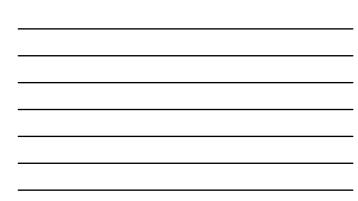


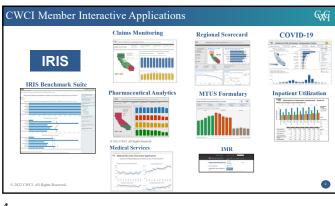
Improving the California workers' compensation system through research, information, education, and representation • Established in 1964; • Private, nonprofit organization of self-insured employers and insurers representing over 85% of premium dollars; • Senior Staff of highly experienced experts; • Dedicated to improving the California workers' compensation system through four primary functions: ✓ Education ✓ Information ✓ Representation ✓ Research 	Mission Statement:
 Private, nonprofit organization of self-insured employers and insurers representing over 85% of premium dollars; Senior Staff of highly experienced experts; Dedicated to improving the California workers' compensation system through four primary functions: ✓ Education ✓ Information ✓ Representation 	
dollars; • Senior Staff of highly experienced experts; • Dedicated to improving the California workers' compensation system through four primary functions: ✓ Education ✓ Information ✓ Representation 	Established in 1964;
 Dedicated to improving the California workers' compensation system through four primary functions: ✓ Education ✓ Information ✓ Representation 	
 ✓ Education ✓ Information ✓ Representation 	 Senior Staff of highly experienced experts;
✓ Information ✓ Representation	
✓ Representation	
✓ Research	
	✓ Research
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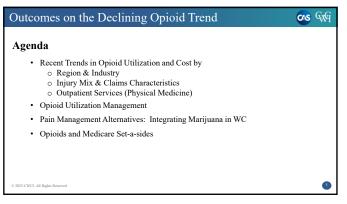


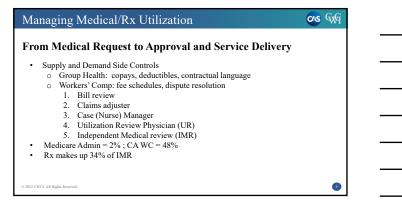


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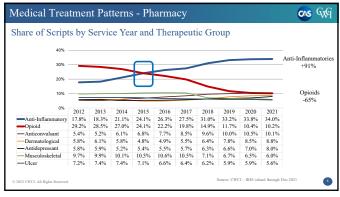




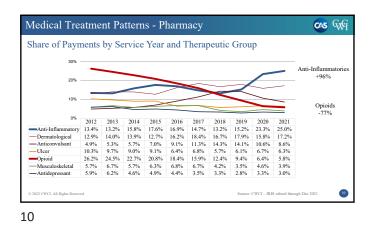


Opioids in Workers' Compensation	vs GwG
Sizing up and managing the opioid epidemic • "Cure and relieve" and pain as a "vital sign"	
The Skew: high volume opioid prescribers	
Workers' compensation public policy research	
The rise of evidence-based medicine and guidelines	
Pharmacy Benefit Management Vendors	
Prescription Drug Monitoring Programs	
Celebrity fatalities	
 Class action lawsuits against opioid manufacturers 	
Drug formularies	
 Medical dispute resolution: utilization review and independent medical review 	,
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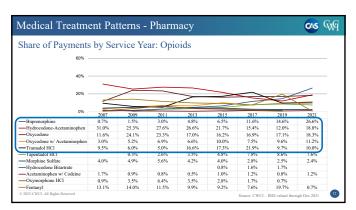






CAS GWG Medical Treatment Patterns - Pharmacy Share of Scripts by Service Year: Opioids 60% 20% 09 2009 57.1% 11.6% 4.5% 4.9% 3.4% 2011 58.3% 11.6% 5.4% 2015 46.5% 21.0% 7.0% 5.2% 2017 44.8% 23.5% 8.2% 4.9% 2021 48.2% 20.0% 10.0% 5.6% 55.3% 15.8% 5.6% 46.7% 19.9% 9.8% 6.3% 12.1% 2.6% nadol HCl odone w/ Ac 4.9% 0.2% 1.4% 2.4% 0.7% 0.4% 4.4% 4.0% 3.4% 1.2% 1.0% 0.7% 0.6% 0.4% 0.4% 2.2% 2.4% 1.0% 0.7% 0.2% 2.2% 1.0% 2.5% 5.2% 0.9% 0.9% 1.0% 2.1% 1.7% 2.3% 5.6% 0.6% 1.0% 1.2% 1.3% 4.7% 3.5% 3.0% 1.8% 0.7% 0.8% 1.1% 0.7% 2.1% 2.3% 4.1% 0.4% 0.8% 1.0% 0.7% 1.5% 2.5% 5.4% 0.8% 1.1% 1.2% 1.7% prenorphine srphine Sulfate dol-A Methadone HCl ydromorphone HCl apentadol HCl mtavy¹ 1.6% •

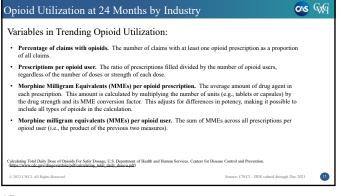
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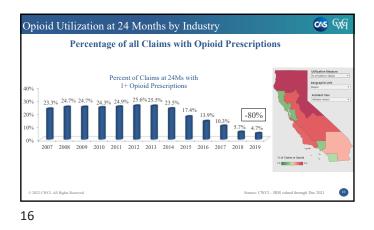


CWCI – CAS Virtual Trunk Show: December 2, 2022

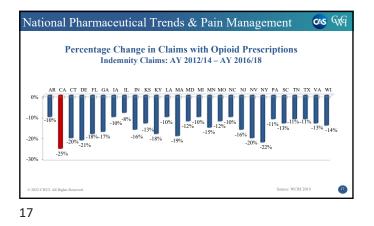
		tterns		2				
hare of Scripts b	y Servi	ice Year	: Anti-Iı	nflamma	atories			
60%								
00/8								
40%								
40/6 -	_							
20%								
20%					\sim			
0%	2007	2009	2011	2013	2015	2017	2019	2021
0% —Ibuprofen	2007 32.0%	2009 26.0%	2011 26.2%	2013 27.3%	2015 28.9%	2017 33.1%	2019 40.5%	2021 41.2%
Ibuprofen	32.0%	26.0%	26.2%	27.3%	28.9%	33.1%	40.5%	41.2%
Ibuprofen Naproxen	32.0% 32.8%	26.0% 34.4%	26.2% 36.1%	27.3% 30.6%	28.9% 27.4%	33.1% 25.6%	40.5% 25.0%	41.2% 24.4%
— Ibuprofen — Naproxen — Meloxicam — Celecoxib	32.0% 32.8% 1.9%	26.0% 34.4% 2.6%	26.2% 36.1% 2.9%	27.3% 30.6% 3.8%	28.9% 27.4% 6.8%	33.1% 25.6% 7.0%	40.5% 25.0% 10.2%	41.2% 24.4% 10.8%
— Ibuprofen — Naproxen — Meloxicam — Celecoxib	32.0% 32.8% 1.9% 5.1%	26.0% 34.4% 2.6% 8.4%	26.2% 36.1% 2.9% 7.5%	27.3% 30.6% 3.8% 7.3%	28.9% 27.4% 6.8% 5.7%	33.1% 25.6% 7.0% 6.3%	40.5% 25.0% 10.2% 6.3%	41.2% 24.4% 10.8% 7.2%
Ibuprofen Naproxen 	32.0% 32.8% 1.9% 5.1% 6.3%	26.0% 34.4% 2.6% 8.4% 6.9%	26.2% 36.1% 2.9% 7.5% 6.8%	27.3% 30.6% 3.8% 7.3% 9.3%	28.9% 27.4% 6.8% 5.7% 14.0%	33.1% 25.6% 7.0% 6.3% 3.6%	40.5% 25.0% 10.2% 6.3% 5.0%	41.2% 24.4% 10.8% 7.2% 4.1%
Ibuprofen Naproxen Meloxicam Celecoxib 	32.0% 32.8% 1.9% 5.1% 6.3% 4.7%	26.0% 34.4% 2.6% 8.4% 6.9% 5.5%	26.2% 36.1% 2.9% 7.5% 6.8% 4.5%	27.3% 30.6% 3.8% 7.3% 9.3% 6.0%	28.9% 27.4% 6.8% 5.7% 14.0% 3.2%	33.1% 25.6% 7.0% 6.3% 3.6% 7.9%	40.5% 25.0% 10.2% 6.3% 5.0% 5.4%	41.2% 24.4% 10.8% 7.2% 4.1% 4.0%
Ibuprofen Naproxen Meloxicam Celecoxib Nabumetone Etodolae 	32.0% 32.8% 1.9% 5.1% 6.3% 4.7%	26.0% 34.4% 2.6% 8.4% 6.9% 5.5%	26.2% 36.1% 2.9% 7.5% 6.8% 4.5%	27.3% 30.6% 3.8% 7.3% 9.3% 6.0%	28.9% 27.4% 6.8% 5.7% 14.0% 3.2% 6.7%	33.1% 25.6% 7.0% 6.3% 3.6% 7.9%	40.5% 25.0% 10.2% 6.3% 5.0% 5.4% 2.6%	41.2% 24.4% 10.8% 7.2% 4.1% 4.0% 2.4%
Ibuprofen Naproxen Celecoxib Celecoxib 	32.0% 32.8% 1.9% 5.1% 6.3% 4.7% 4.3%	26.0% 34.4% 2.6% 8.4% 6.9% 5.5% 4.3%	26.2% 36.1% 2.9% 7.5% 6.8% 4.5% 5.3%	27.3% 30.6% 3.8% 7.3% 9.3% 6.0% 5.6%	28.9% 27.4% 6.8% 5.7% 14.0% 3.2% 6.7% 0.6%	33.1% 25.6% 7.0% 6.3% 3.6% 7.9% 4.7%	40.5% 25.0% 10.2% 6.3% 5.0% 5.4% 2.6% 0.8%	41.2% 24.4% 10.8% 7.2% 4.1% 4.0% 2.4% 1.6%

edical Treatm	ient Pa	tterns ·	- Pharn	nacy				CAS
are of Paymen	ts by Se	ervice V	ear Ant	i-Inflam	matorie			
are of raymen	13 Uy 50		car. min	I-IIIIIaII	matoric			
60% -								
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	\mathbf{i}	\sim	\geq	\leq	\geq	$ \ge $		\geq
0%	2007	2009	2011	2013	2015	2017	2019	2021
	2007	2009	2011	2013	2015 1.2%	2017	2019 21.7%	2021 36.7%
0%	2007	2009	2011 26.5%	2013		2017		
0% —Fenoprofen Calcium					1.2%		21.7%	36.7%
0% —Fenoprofen Calcium —Naproxen	32.5%	26.2%	26.5%	19.1%	1.2% 24.3%	21.8%	21.7% 27.7%	36.7% 18.0%
0% —Fenoprofen Calcium —Naproxen —Ketoprofen	32.5% 4.4%	26.2% 13.3%	26.5% 17.9%	19.1% 11.7%	1.2% 24.3% 4.9%	21.8% 18.7%	21.7% 27.7% 2.3%	36.7% 18.0% 12.0%
0% —Fenoprofen Calcium —Naproxen —Ketoprofen —Ibuprofen	32.5% 4.4% 9.3%	26.2% 13.3% 4.6%	26.5% 17.9% 4.2%	19.1% 11.7% 3.6%	1.2% 24.3% 4.9% 3.8%	21.8% 18.7% 8.0%	21.7% 27.7% 2.3% 10.7%	36.7% 18.0% 12.0% 7.9%
0% —Fenoprofen Calcium —Naproxen —Ketoprofen —Ibuprofen —Celecoxib	32.5% 4.4% 9.3% 12.0%	26.2% 13.3% 4.6% 19.0%	26.5% 17.9% 4.2% 17.9%	19.1% 11.7% 3.6% 19.5%	1.2% 24.3% 4.9% 3.8% 15.0%	21.8% 18.7% 8.0% 9.9%	21.7% 27.7% 2.3% 10.7% 7.1%	36.7% 18.0% 12.0% 7.9%
0% —Fenoprofen Calcium —Naproxen —Ketoprofen —Ibuprofen —Celecoxib —Etanercept	32.5% 4.4% 9.3% 12.0% 0.9%	26.2% 13.3% 4.6% 19.0% 1.3%	26.5% 17.9% 4.2% 17.9% 1.3%	19.1% 11.7% 3.6% 19.5% 1.8%	1.2% 24.3% 4.9% 3.8% 15.0% 1.2%	21.8% 18.7% 8.0% 9.9% 4.4%	21.7% 27.7% 2.3% 10.7% 7.1% 7.4%	36.7% 18.0% 12.0% 7.9% 7.2%
	32.5% 4.4% 9.3% 12.0% 0.9% 4.7%	26.2% 13.3% 4.6% 19.0% 1.3% 4.4%	26.5% 17.9% 4.2% 17.9% 1.3% 6.5%	19.1% 11.7% 3.6% 19.5% 1.8% 5.8%	1.2% 24.3% 4.9% 3.8% 15.0% 1.2% 8.1%	21.8% 18.7% 8.0% 9.9% 4.4% 11.2%	21.7% 27.7% 2.3% 10.7% 7.1% 7.4% 3.7%	36.7% 18.0% 12.0% 7.9% 7.2%

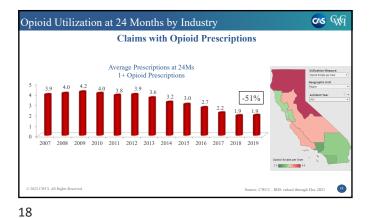


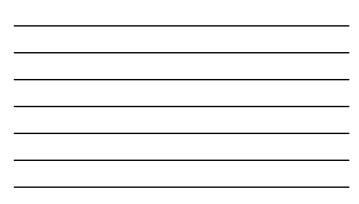




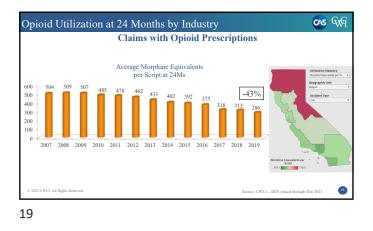








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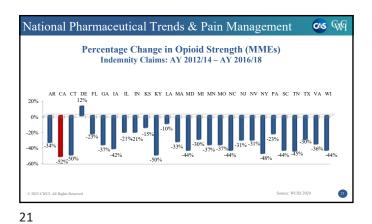




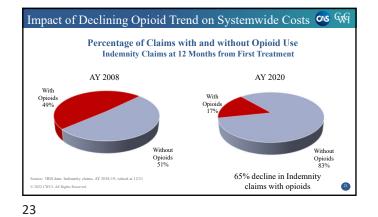
CAS GWG Opioid Utilization at 24 Months by Industry **Claims with Opioid Prescriptions** Average Cumulative Morphine Equivalents at 24Ms 2,027 -72% 1 542 600 1 161 800 400 2014 2015 2016 2017 2018 2019 2012 2013 20 CWCL All Right Source: CWCI - IRIS



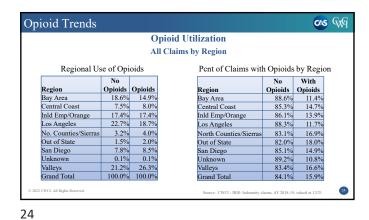






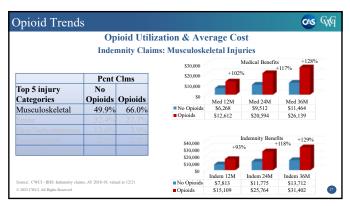


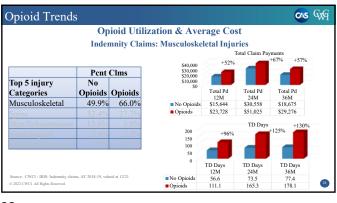


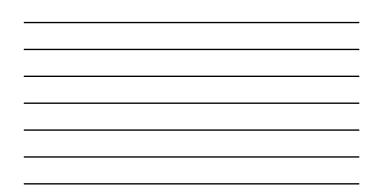


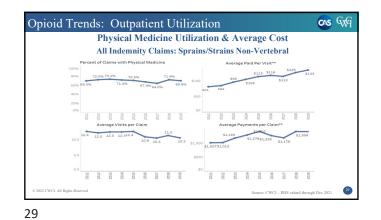
		0	pioid Utilization		
		Indem	nity Claims by Region		
Attorney	Involver	nent	Claim	Closure	
Region	No Opioids	Opioids	Region	No Opioids	With Opioids
Bay Area	33.3%		Bay Area	81.5%	
entral Coast	37.4%		Central Coast	80.7%	
nld Emp/Orange	46.7%		Inld Emp/Orange	77.0%	
os Angeles	48.3%	69.8%	Los Angeles	72.4%	
lo. Counties/Sierras	28.2%	52.3%	North Counties/Sierras	82.7%	55.9%
Out of State	57.6%	78.5%	Out of State	70.1%	50.5%
San Diego	40.3%	69.3%	San Diego	84.5%	55.5%
Jnknown	50.0%	20.0%	Unknown	55.0%	20.0%
Valleys	35.8%	64.8%	Valleys	82.6%	59.4%
Frand Total	40.6%	67.3%	Grand Total	78.9%	54.2%

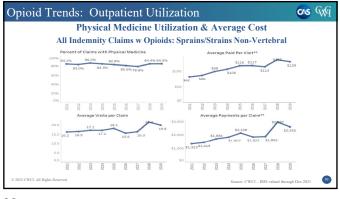
Opioid Trends		0	oid Utilization		
		Indemnit	Claims by Injury Type		
	Pent I	njuries		Pcnt	Clms
Top 5 injury	No		Top 5 injury	No	
Categories	Opioids	Opioids	Categories	Opioids	Opioids
Musculoskeletal	49.9%	66.0%	Musculoskeletal	79.7%	20.3%
Spine	32.4%	27.7%	Spine	85.5%	14.5%
Skin/Subcutaneous	13.6%	3.9%	Skin/Subcutaneous	94.2%	5.8%
Neurological	2.9%	2.2%	Neurological	88.8%	11.2%
Mental/Behaviorial	1.2%	0.1%	Mental/Behaviorial	97.9%	2.1%

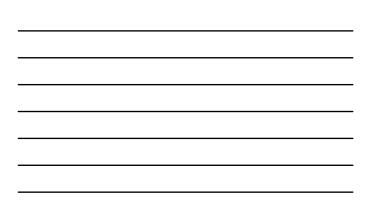


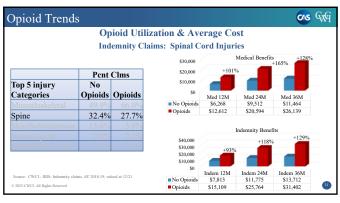


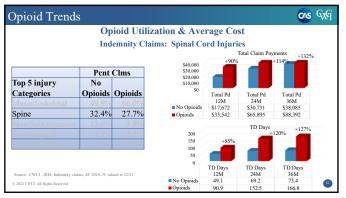


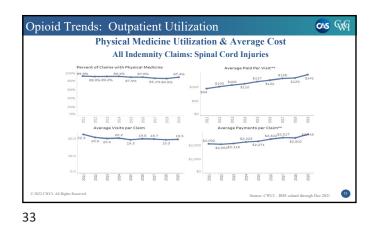


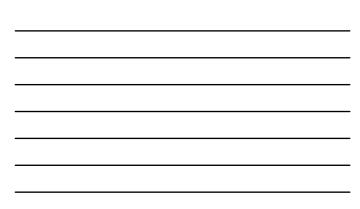




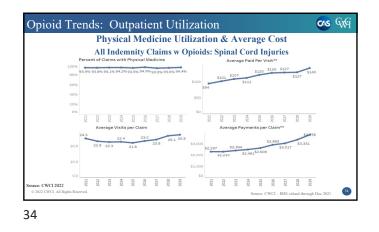


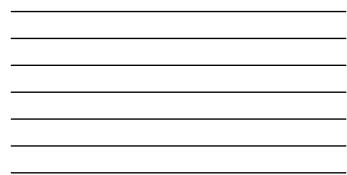


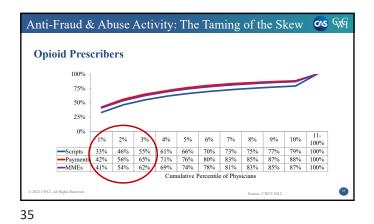




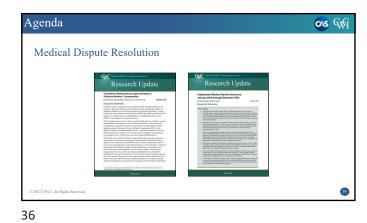
CWCI - CAS Virtual Trunk Show: December 2, 2022

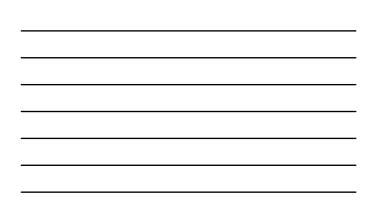




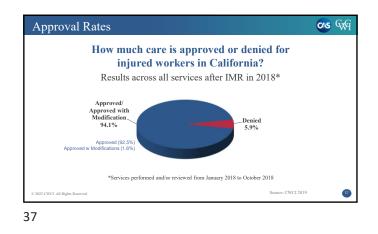




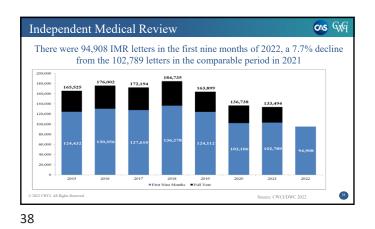




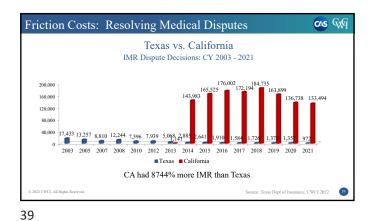
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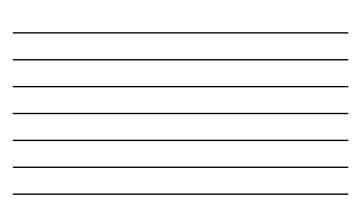






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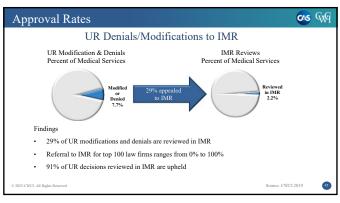
/IR Service Mi	X							CVR (
Service Requested	2015	2016	2017	2018	2019	2020	2021	2022Q3
Pharmaceuticals	49.9%	48.8%	47.3%	46.4%	41.1%	39.1%	34.9%	33.8%
Physical Therapy	8.7%	9.2%	10.0%	10.3%	12.0%	12.3%	13.4%	13.3%
Injections	7.0%	7.5%	8.3%	9.2%	10.2%	11.0%	12.0%	12.2%
DME/Prosth/Ortho	7.7%	7.1%	6.7%	7.1%	7.8%	8.6%	9.5%	8.3%
MRI/CT/PET	4.2%	4.5%	4.7%	4.6%	4.8%	4.9%	5.0%	5.4%
Acupuncture	2.2%	2.3%	2.5%	3.0%	3.7%	3.8%	4.2%	4.5%
Surgery	3.4%	3.2%	3.1%	3.1%	3.6%	3.7%	3.6%	3.7%
Diagnostic Test / Measure	3.4%	3.5%	3.4%	3.4%	3.2%	3.0%	3.0%	2.8%
Chiro Manipulation	1.6%	1.7%	1.7%	1.7%	2.2%	2.2%	2.5%	2.7%
Eval and Mgt	2.3%	2.2%	2.2%	2.0%	1.9%	2.1%	2.3%	2.5%
Laboratory Services	2.8%	3.2%	3.2%	2.5%	2.1%	1.6%	1.6%	1.4%
Psych Services	1.4%	1.4%	1.3%	1.2%	1.3%	1.4%	1.5%	1.7%
Other	5.5%	5.3%	5.6%	5.5%	6.1%	6.1%	6.6%	7.8%
Total	100%	100%	100%	100%	100%	100%	100%	100%

IR Uphold Rat	es by	Servi	ice					CVS
Service Requested	2015	2016	2017	2018	2019	2020	2021	2022Q3
Pharmaceuticals	89.7%	92.5%	91.9%	89.3%	89.2%	90.4%	92.9%	91.3%
Physical Therapy	92.1%	93.2%	93.5%	91.2%	89.7%	89.8%	92.1%	92.5%
Injections	87.4%	89.4%	89.5%	89.1%	88.8%	91.3%	95.0%	95.7%
DME/Prosth/Ortho	90.0%	91.9%	91.9%	88.8%	89.6%	91.3%	93.1%	91.1%
MRI/CT/PET	86.4%	88.6%	89.2%	87.6%	86.3%	88.2%	91.5%	91.3%
Acupuncture	91.6%	93.6%	94.0%	92.7%	89.7%	87.8%	90.5%	93.4%
Surgery	86.6%	88.9%	90.8%	88.1%	88.7%	87.3%	88.5%	85.9%
Diagnostic Test/Measure	84.5%	91.3%	91.3%	89.0%	86.7%	88.7%	92.3%	91.8%
Chiro Manipulation	90.5%	92.1%	93.8%	92.1%	89.1%	86.9%	89.2%	86.7%
Eval and Mgt	67.2%	77.3%	77.8%	75.9%	74.7%	80.7%	84.9%	82.0%
Laboratory Services	82.9%	88.5%	86.5%	82.9%	81.5%	82.1%	87.4%	82.8%
Psych Services	83.2%	85.3%	84.4%	78.8%	79.1%	81.8%	85.1%	81.7%
Other	86.4%	88.5%	87.9%	85.0%	85.4%	87.6%	90.1%	88.6%
Total	88.4%	91.2%	91.0%	88.6%	88.2%	89.4%	92.0%	91.0%

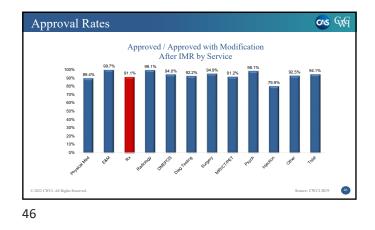


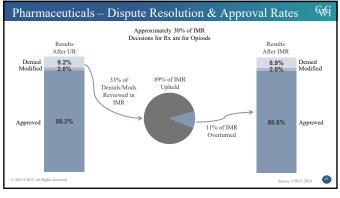
				% 0	fRx			
Rx Drug Category	2015	2016	2017	2018	2019	2020	2021	20220
Analgesics-Opioid	30.4%	28.9%	29.5%	32.2%	30.9%	28.3%	25.4%	24.7%
Musculoskeletal Therapy	11.9%	12.6%	12.9%	14.3%	15.4%	16.7%	17.5%	17.6%
Dermatologicals	9.6%	10.3%	11.4%	10.9%	12.8%	14.8%	16.7%	17.2%
Anticonvulsants	5.0%	5.4%	6.0%	8.1%	8.7%	10.1%	10.1%	10.0%
Anti-Inflammatory	7.5%	8.7%	9.7%	7.5%	6.3%	6.4%	7.4%	7.8%
Antidepressants	3.6%	3.9%	4.0%	4.9%	5.0%	4.4%	3.3%	3.4%
Ulcer Drugs	7.3%	7.3%	7.1%	4.7%	3.5%	3.4%	3.5%	3.2%
Hypnotics	3.9%	3.7%	3.1%	2.7%	2.4%	2.0%	1.7%	1.7%
Antianxiety	2.7%	2.7%	2.6%	2.4%	2.2%	1.9%	1.8%	1.6%
Analgesics-Non-Narcotic	1.1%	1.4%	1.8%	2.2%	1.9%	2.1%	2.1%	1.8%
Compounded	8.4%	6.6%	4.2%	2.0%	1.6%	1.3%	1.3%	1.6%
Other	8.7%	8.4%	7.7%	8.2%	9.3%	8.7%	9.2%	9.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

				% U	pheld			
Rx Drug Category	2015	2016	2017	2018	2019	2020	2021	2022
Analgesics-Opioid	88.1%	90.3%	90.1%	89.5%	90.2%	90.9%	93.1%	91.7
Musculoskeletal Therapy	96.1%	96.9%	97.2%	95.8%	95.5%	96.5%	98.5%	98.4
Dermatologicals	94.8%	96.3%	96.5%	94.6%	93.6%	93.0%	95.1%	96.0
Anticonvulsants	80.4%	86.8%	87.5%	80.4%	81.9%	86.0%	91.2%	92.0
Anti-Inflammatory	80.5%	89.3%	88.2%	83.5%	81.0%	82.7%	85.1%	79.6
Antidepressants	73.1%	83.3%	81.8%	75.8%	74.7%	79.7%	82.4%	73.2
Ulcer Drugs	89.0%	93.0%	91.8%	88.3%	87.7%	86.6%	89.8%	82.1
Hypnotics	97.4%	98.2%	97.7%	97.2%	97.2%	97.9%	98.2%	97.6
Antianxiety	96.3%	97.2%	95.1%	94.4%	92.5%	94.5%	94.6%	91.3
Analgesics-Non-Narcotic	88.6%	92 5%	91.8%	91.6%	89.5%	90.9%	91.6%	86.5
Compounded	99.3%	99.5%	99.3%	99.0%	98.4%	98.7%	98.3%	98.7
Other	87.5%	90.6%	89.3%	85.2%	85.4%	85.9%	89.1%	86.0
Total	89.7%	92.5%	91.9%	89.3%	89.2%	90.4%	92.9%	91.3

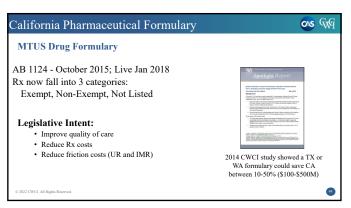




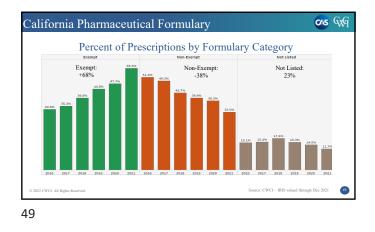




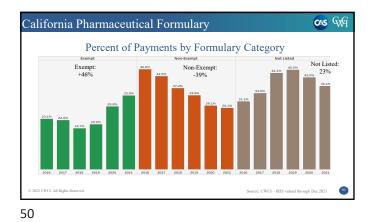


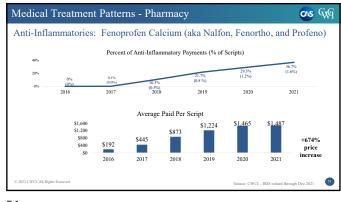


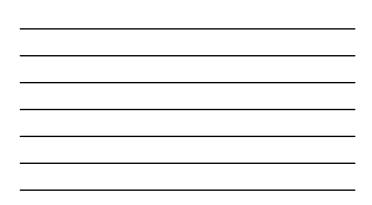


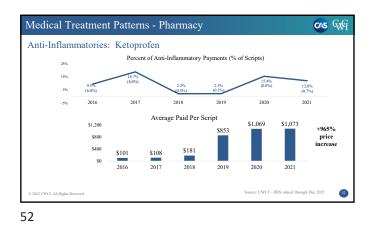


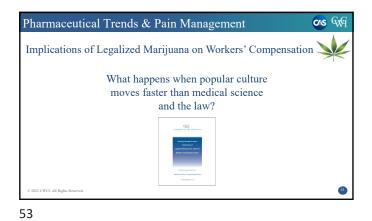


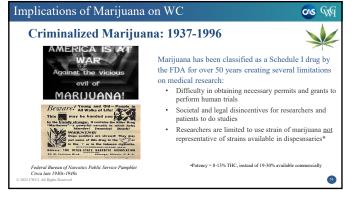


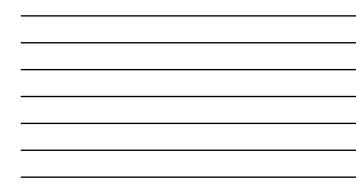












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