California Workers' Compensation Institute

Research Update

Independent Medical Review Decisions: January 2015 through December 2021

By Robby Bullis and Bob Young March 2022

Executive Summary

Key Findings

- The number of Independent Medical Review (IMR) determination letters issued in the California workers' compensation system continued to trend down last year, falling 2.4 percent to 133,494 letters, marking the third consecutive year that IMR volume has declined. Although last year's decline paled in comparison to the 11.3 percent drop in 2019 and the 16.6 percent drop in 2020, the latest tally marked the lowest IMR output since the medical dispute resolution process first took effect.
- Los Angeles County, the Bay Area, and the Central Valley accounted for 71.8 percent of the IMR decision letters in 2021. The Bay Area and Los Angeles County had a disproportionately high share of the IMR letters relative to their share of the state's workers' comp claims, while the Inland Empire/Orange County, San Diego, and the North Counties/Sierras had a disproportionately low share.
- Disputes over pharmaceutical requests remain the most common type of medical service dispute submitted for IMR, accounting for 34.9 percent of the 2021 IMR decisions, though that proportion is down from 49.9 percent of decisions in 2015. Just over a quarter of the disputed pharmaceutical requests involved opioids, but that proportion is down from 28.3 percent in 2020. IMR physicians upheld more than 92 percent of the Utilization Review (UR) denials and modifications of pharmaceutical requests, including opioid requests.
- IMR physicians upheld UR modifications and denials 92.0 percent of the time in 2021, which was up from an 89.4 percent uphold rate in 2020. The breakdown by medical service category shows IMR uphold rates ranged from a low of 84.9 percent for Evaluation and Management (E&M) services to a high of 95.0 percent for injection requests.
- In one out of eight 2021 IMR decisions the UR physician determined that the requested service was medically necessary but modified the request (typically to a lesser quantity) to make it comply with the treatment guideline. These types of modifications accounted for 15.3 percent of pharmaceutical IMRs and 22.2 percent of physical therapy IMRs.
- A small number of physicians continue to drive a high percentage of IMR requests, with the top 1 percent of requesting physicians (82 providers) accounting for 39.9 percent of the disputed service requests that underwent IMR in 2021, and the top 10 individual physicians accounting for 10.7 percent of the disputed service requests.

Background/Objective

The goal of California workers' compensation medical treatment is to provide injured workers with reasonable and necessary medical care to cure or relieve the effects of their injury and bring them to their maximum possible health and functioning so that they can return to work as soon as possible.

Mandatory UR programs in California workers' compensation, which are designed to ensure that the medical care provided to injured workers is supported by clinical evidence outlined in evidence-based treatment guidelines, date back more than 15 years. In 2003, state lawmakers included a provision in SB 228 mandating that every workers' compensation claims organization have a UR program governed by written policies and procedures consistent with requirements detailed in the Labor Code[1] and overseen by a medical director, and that all UR programs be filed with the Administrative Director of the Division of Workers' Compensation.

Following the adoption of regulations, implementation of the mandatory UR programs began in 2005. In 2008, the state Supreme Court expanded the scope of UR programs, ruling that all workers' compensation treatment requests must undergo UR.[2] That process may include prior authorization for certain treatment requests as outlined in the written UR program, or simple review and approval by a claims examiner or other non-physician. However, only a physician may deny or modify a treatment request, so any request that is not approved in the initial review is subject to review for medical necessity by a physician who uses evidence-based guidelines to decide whether to authorize, modify, or deny the treatment request.

UR programs address not only the types of medical services appropriate for a specific injury or illness, but the modality, frequency, duration, and setting in which the services are rendered. While most treatment reviewed in UR is approved, in 2012 state lawmakers enacted SB 863, which included the adoption of the IMR process to allow injured workers or their representatives to dispute a UR modification or denial, submit additional evidence in support of the treatment request, and obtain an independent medical opinion on whether the service is medically necessary under evidence-based medicine standards. Prior to SB 863, treatment disputes were settled by administrative law judges; but with implementation of IMR in January 2013, responsibility for determining whether a disputed medical service request met the evidence-based clinical guidelines shifted to the IMR physician, along with the responsibility to protect injured workers from unproven, unnecessary, and potentially harmful treatment.

The workers' compensation medical dispute resolution process evolved further in 2016, when Governor Brown signed SB 1160 which amended Labor Code §4610 to streamline delivery of injured workers' medical treatment by reducing the types of services subject to prospective UR when provided within the first 30 days of injury. SB 1160, which took effect January 1, 2018, also mandated greater oversight of UR programs, including a requirement that all organizations providing UR services be accredited.[3] At about the same time, the state adopted two reforms that played a major role in reducing prescription drug disputes, which at the time, accounted for nearly half of all IMRs in the state:

1. DWC incorporated ACOEM's Chronic Pain and Opioid Guidelines into the Medical Treatment Utilization Schedule (MTUS), and
2. The Division implemented the Workers' Compensation Prescription Drug Formulary, which had been authorized by 2015 legislation (AB 1124). The formulary categorized prescription drugs as Exempt from prospective UR, Non-Exempt (or subject to prospective UR), or Not Listed, and

[1] California Labor Code §4610.
[2] *State Compensation Insurance Fund. v. WCAB (Sandhagen)* (2008) 44 Cal. 4th 230, 186 P.3rd, 535, 79 Ca. Rptr. 3rd 171.
[3] URAC accreditation became mandatory July 1, 2018. Labor Code §4610(g)(4).

established subcategories of Non-Exempt drugs (Special Fill and Perioperative drugs) to allow for special circumstances or pre- and post-operative situations in which physicians can prescribe limited amounts of certain drugs that would otherwise be subject to prospective UR and IMR.

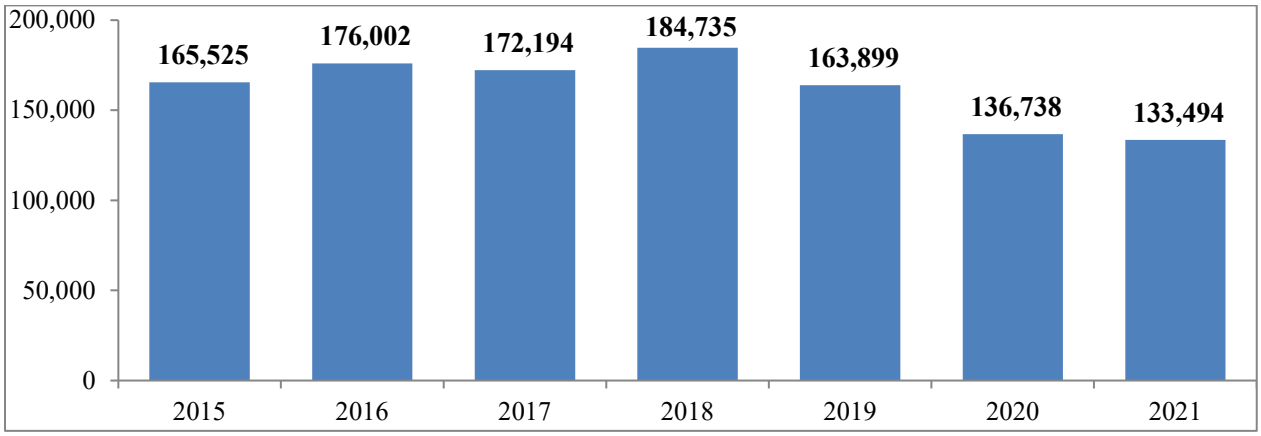
In the nine years since IMR took effect, CWCI has used IMR determination letters to track IMR volume and outcomes in a series of studies,[4] the most recent of which was published in April 2020. [5] This report continues that series by generating summary statistics compiled from January 2015 through December 2021 IMR determination letters. In addition to IMR volume, the authors examined shifts in the mix of services reviewed; changes in IMR response times; regional variations; IMR uphold rates by medical service category; the distribution of prescription drug IMRs and uphold rates by drug category; the proportion of IMRs involving medical service request modifications among six treatment categories; and the concentration of IMR activity among high-volume physicians named in IMR letters.

Results

Number of IMR Determination Letters

The data in this study was derived from 1.1 million IMR determination letters generated during the 7-year study period by Maximus, the Independent Medical Review Organization contracted by the DWC to manage the IMR process. The distribution of IMR letters by year (Exhibit 1) shows that in 2015, Maximus issued 165,525 IMR determination letters, and while it was expected that IMR volume would quickly decline as physicians, attorneys, and others involved in the process adjusted to the rules and came to understand the types of treatment that meet evidence-based medicine standards, it was not until 2018 – five years after IMR first took effect – that IMR volume peaked, with a record 184,735 letters issued that year.[6] In 2019, IMR volume registered the first significant decline, as the total number of IMR letters issued by Maximus fell 11.3 percent from the 2018 peak. The decline in IMR volume accelerated in 2020 as the number of determination letters fell 16.6 percent during the first year of the pandemic, then continued in 2021, albeit at a much slower rate, falling another 2.4 percent to an 8-year low of 133,494 letters.

Exhibit 1: Eligible IMR Determination Letters, Jan. 2015 – Dec. 2021



[4] California Workers' Compensation Institute - Research (cwci.org)

[5] Bullis, R., David, R., "IMR Decisions, January 2014 Through December 2020. CWCI Research Update, April 2020.

[6] The numbers for 2015-2021 shown on this page are from the Division of Workers' Compensation on the Dept of Industrial Relations website. The CWCI analysis for January 2015-December 2021 reflects data compiled from 1,122,776 Final Determination Letters provided by Maximus, so the balance of the report is based on a 99.1 percent subset of the 1,132,587 letters reported by DWC for this period.

IMR Distribution and Uphold Rates by Medical Service Category

Since IMR was first implemented in 2013, the types of services that undergo the process has remained fairly consistent, with pharmaceuticals remaining the highest volume category, accounting for 34.9 percent of all services reviewed in 2021. While prescription drug requests continue to account for more IMRs than any other medical service category, their share of the IMRs has declined by 15 percentage points from the peak level recorded in 2015, when pharmaceutical requests accounted for nearly half of all IMRs.

Exhibit 2: IMR Distribution by Medical Service Category, Jan. 2015 – Dec. 2021

	2015	2016	2017	2018	2019	2020	2021
Service Requested	% of Service Requests						
Pharmaceuticals	49.9%	48.8%	47.3%	46.4%	41.1%	39.1%	34.9%
Physical Therapy	8.7%	9.2%	10.0%	10.3%	12.0%	12.3%	13.4%
Injections	7.0%	7.5%	8.3%	9.2%	10.2%	11.0%	12.0%
DME/Prosth/Ortho/Supplies	7.7%	7.1%	6.7%	7.1%	7.8%	8.6%	9.5%
MRI/CT/PET	4.2%	4.5%	4.7%	4.6%	4.8%	4.9%	5.0%
Acupuncture	2.2%	2.3%	2.5%	3.0%	3.7%	3.8%	4.2%
Surgery	3.4%	3.2%	3.1%	3.1%	3.6%	3.7%	3.6%
Diagnostic Test / Measure	3.4%	3.5%	3.4%	3.4%	3.2%	3.0%	3.0%
Chiropractic Manipulation	1.6%	1.7%	1.7%	1.7%	2.2%	2.2%	2.5%
Evaluation & Management	2.3%	2.2%	2.2%	2.0%	1.9%	2.1%	2.3%
Laboratory Services	2.8%	3.2%	3.2%	2.5%	2.1%	1.6%	1.6%
Psych Services	1.4%	1.4%	1.3%	1.2%	1.3%	1.4%	1.5%
Other	5.5%	5.3%	5.6%	5.5%	6.1%	6.1%	6.6%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

As shown in Exhibit 2, pharmaceuticals' share of the IMRs has now declined for six consecutive years, beginning in 2016, though most of that decline occurred after the state adopted ACOEM's Chronic Pain and Opioid Guidelines, which took effect in December 2017, and after the MTUS prescription drug formulary took effect in January 2018. A key goal of the formulary was to reduce prescription drug disputes by classifying drugs as Exempt from prospective UR; Non-Exempt or subject to prospective UR; or Not Listed and subject to prospective UR; and to establish two subcategories of Non-Exempt drugs – Special Fill and Perioperative drugs – to allow for special circumstances or pre-and post-operative situations in which physicians can prescribe limited amounts of certain drugs that would otherwise be subject to prospective UR and IMR.

With prescription drugs accounting for a smaller share of the IMR disputes since 2018, physical therapy; injections; and DME, prosthetics, orthotics, and supplies have all seen their share of the IMRs increase by 2.4 to 3.1 percentage points. Aside from the pharmaceuticals, the only other major medical service categories that have seen their share of IMR disputes decline since 2018 are diagnostic tests/measurements which have edged down slightly from 3.4 percent of the IMR disputes in 2018 to 3.0 percent in 2021; and laboratory services which have dropped from 2.5 percent to 1.6 percent of the IMR disputes over the same 3-year period, which is likely tied to the reduced need for drug testing for opioids and other controlled substances since the adoption of the Chronic Pain and Opioid Guidelines and the MTUS formulary.

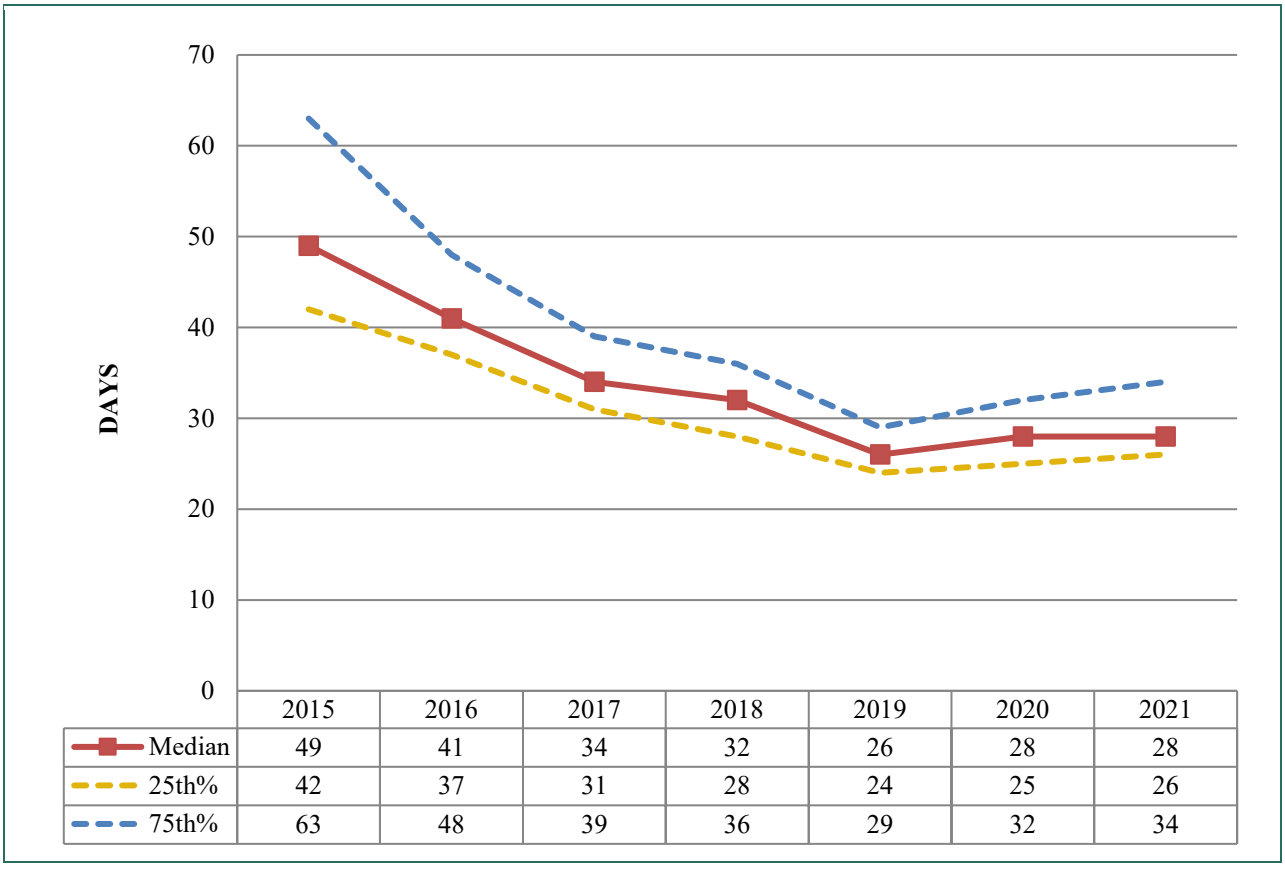
IMR Response Time

Each IMR determination letter includes the date of the UR denial or modification, the date that the IMR application was received, and the date of the determination letter, which is considered to be the review completion date.

After Maximus receives an IMR application from an injured worker or their representative (typically an attorney), it must confirm the eligibility of the application; request, receive, and process the medical records; and assign the case to a reviewing physician. State law requires that Maximus issue an IMR determination letter within 30 days of receiving the application and all necessary records (up to 15 days are allowed for the receipt of necessary records, so Maximus has up to 45 days to issue the determination letter). In comparison, prior to the adoption of IMR it often took months for medical disputes to be resolved by an administrative law judge at the Workers' Compensation Appeals Board.

Exhibit 3 shows the median time that elapsed between Maximus' receipt of an IMR application and the date it issued the determination letter, with results broken out based on the year in which the decision was issued. The timeliness of Maximus' response to IMR applications improved steadily from 2015 through 2019 but edged up slightly in 2020 and again in 2021. This is likely due, at least in part, to the pandemic, though the IMR response times are still well below those recorded prior to 2019. In 2021, the median number of days from Maximus' receipt of an IMR application to the issuance of a decision letter remained the same as in 2020, 28 days; with 25 percent of the applications decided within 26 days, and 75 percent determined within 34 days, all of which were still well within the statutory requirements.

Exhibit 3: Days from IMR Application Date to Date of Decision Letter, Jan. 2015 – Dec. 2021

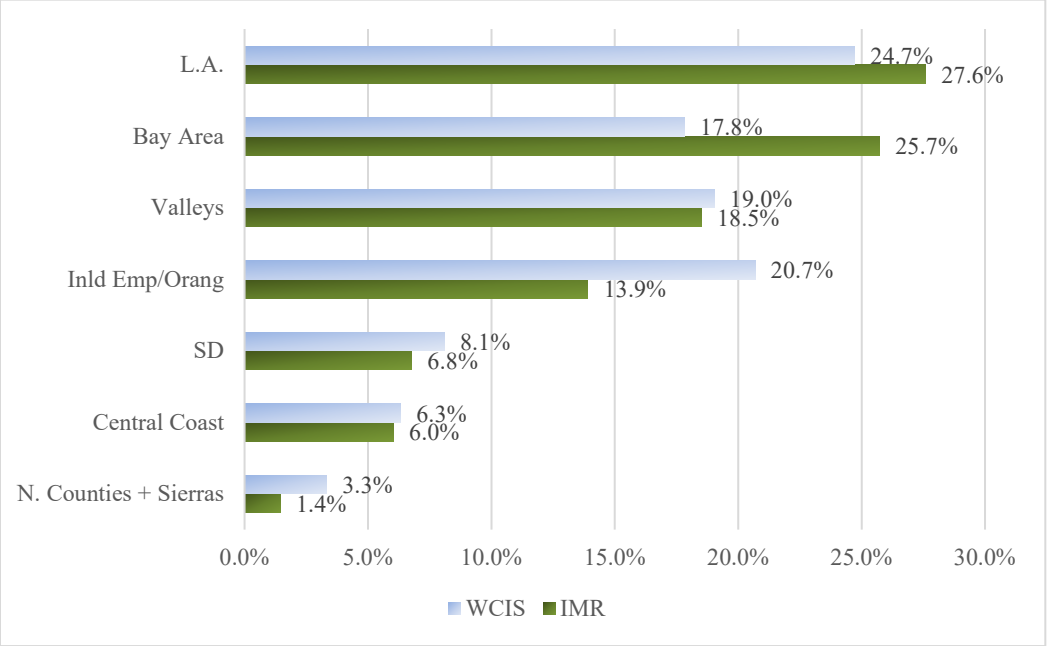


	2015	2016	2017	2018	2019	2020	2021
Median	49	41	34	32	26	28	28
25th%	42	37	31	28	24	25	26
75th%	63	48	39	36	29	32	34

Regional Distribution of 2021 Claims to IMR Determination Letters

IMR determination letters also include an address for the injured worker or their representative. Using the ZIP codes from the addresses on the 2021 letters, the authors determined the distribution of the 2021 IMR letters across seven regions of the state. The percentage of IMR letters sent to each geographic region was then compared to the percentage of all 2021 claims from each region as identified by the DWC's Workers' Compensation Information System (WCIS)[7] to identify those regions where IMR was disproportionately high or low relative to claim volume (Exhibit 4).

Exhibit 4: 2021 Regional Distribution of WC Claims vs. IMR Letters



Compared to the percentage of claims in each region, the volume of IMR letters was disproportionately high in the Bay Area, which accounted for 17.8 percent of all California workers' compensation claims last year, but 25.7 percent of the IMR letters; and in Los Angeles, which had 24.7 percent of the claims, but 27.6 percent of the IMR letters. IMR letters were disproportionately low in the Inland Empire/Orange County, which had 20.7 percent of the claims, but 13.9 percent of the IMR letters, San Diego, which had 8.1 percent of the claims but 6.8 percent of the letters, and in the North Counties/Sierras which had 3.3 percent of the claims but 1.4 percent of the letters. The percentage of claims and IMR letters were in proportion with each other in the Central Valley and the Central Coast.

IMR Uphold Rates of UR Decisions on Primary Service Requests

IMR physicians assigned by Maximus are responsible for reviewing the medical records along with the applicable guidelines and any additional materials submitted in support of a medical service request in order to determine whether the treating physician's request is medically appropriate, then issues a determination upholding or overturning the decision of the UR physician. Exhibit 5 shows that over the

[7] The Workers' Compensation Information System (WCIS) uses electronic data interchange to collect claims data from workers' compensation claims administrators to help the Department of Industrial Relations oversee the workers' compensation system and to provide data for research.

past seven years, the overall IMR uphold rates ranged between 88.2 percent and 92.0 percent, indicating that in most cases, UR decision-making adheres to the relevant guidelines, though conversely, over that same 7-year period IMR physicians overturned between 8.0 percent and 11.8 percent of the UR decisions, demonstrating that IMR does provide injured workers an opportunity to obtain a second opinion on the interpretation of the evidence-based guidelines and/or to present patient-specific factors that can merit an exception. The breakdown by service category shows that since 2015 uphold rates have been fairly stable across most service categories, with the exception being E&M services, which are primarily requests for office visits and consultations. The uphold rate for E&M services rose from 67.2 percent in 2015 to a high of 84.9 percent in 2021, though that increase had little impact on the overall uphold rate as E&M requests only accounted for 2.3 percent of the services submitted for IMR in 2021. Notably, the uphold rates for the two highest volume categories (pharmaceuticals and physical therapy) were fairly stable, fluctuating by less than 4 percentage points over the past 7 years, while the uphold rates among the rest of the medical service categories varied between 4.1 and 7.8 percentage points.

Exhibit 5: IMR Uphold Rates by Medical Service Category, Jan. 2015 – Dec. 2021

	2015	2016	2017	2018	2019	2020	2021
Service Requested	**% Upheld**						
Pharmaceuticals	89.7%	92.5%	91.9%	89.3%	89.2%	90.4%	92.9%
Physical Therapy	92.1%	93.2%	93.5%	91.2%	89.7%	89.8%	92.1%
Injections	87.4%	89.4%	89.5%	89.1%	88.8%	91.3%	95.0%
DME/Prosth/Ortho/Supplies	90.0%	91.9%	91.9%	88.8%	89.7%	91.3%	93.1%
MRI/CT/PET	86.4%	88.6%	89.2%	87.6%	86.4%	88.2%	91.6%
Acupuncture	91.6%	93.6%	94.0%	92.7%	89.7%	87.8%	90.5%
Surgery	86.6%	88.9%	90.8%	88.1%	88.6%	87.3%	88.4%
Diagnostic Test / Measure	84.5%	91.3%	91.3%	89.0%	86.6%	88.7%	92.3%
Chiropractic Manipulation	90.5%	92.1%	93.8%	92.1%	89.1%	86.9%	89.3%
Evaluation & Management	67.2%	77.3%	77.8%	75.9%	74.8%	80.7%	84.9%
Laboratory Services	82.9%	88.5%	86.5%	82.9%	81.5%	82.1%	87.4%
Psych Services	83.2%	85.3%	84.4%	78.8%	79.0%	81.8%	85.1%
Other	86.4%	88.5%	87.9%	85.0%	85.4%	87.6%	90.1%
Overall	**88.4%**	**91.2%**	**91.0%**	**88.6%**	**88.2%**	**89.4%**	**92.0%**

The latest year-to-year results show the IMR uphold rate for all medical services rose by 2.6 percentage points last year, increasing from 89.4 percent in 2020 to 92.0 percent in 2021. Comparing IMR outcomes by treatment category shows that between 2020 and 2021 the uphold rates increased in all categories. The largest increase was in the uphold rate for laboratory services, which went from 82.1 percent in 2020 to 87.4 percent in 2021, while results for the top three service categories, which together represented 60.3 percent of last year's IMR volume, show increases of 2.5 percentage points in the uphold rate for pharmaceuticals, 2.3 percentage points for physical therapy, and 3.7 percentage points for injections.

Prescription Drug IMR Distribution and Uphold Rates by Drug Category

As noted previously, pharmaceuticals continued to top the list of medical service requests submitted for IMR last year, with more than 72,000 prescription drug requests going through IMR in 2021. Disputes over pharmaceutical requests can involve a number of factors: the appropriateness and strength of the drug, the quantity and duration of the prescription, as well as contraindications with other prescribed

medicines, all of which may be considered by UR and IMR physicians in determining whether a request should be modified or denied. In 2021, IMR physicians upheld the UR physicians' modification or denial of a disputed prescription drug request 92.9 percent of the time.

Exhibits 6a and 6b show the distribution of the pharmaceutical IMR decisions by therapeutic drug category for 2015 through 2021, and the uphold rates for the UR physicians' modification or denial. Opioids remained the number one drug category submitted for IMR in 2021, accounting for 25.4 percent of all pharmaceutical IMR decisions, though that was the lowest percentage in the last seven years. Again, opioid IMRs declined sharply after the DWC adopted ACOEM's Chronic Pain and Opioid Guidelines, which took effect in December 2017, and the MTUS prescription drug formulary which took effect in January 2018. Compound drug requests accounted for only 1.4 percent of the IMRs in 2021, down from 8.4 percent in 2015. Modifications and denials of compounded drug requests have been upheld by the IMR physicians in about 99 percent of the cases across all seven years.

Exhibit 6a: Distribution of Rx IMR Decisions by Drug Type, Jan. 2015 – Dec. 2021

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

Exhibit 6b: IMR Uphold Rates by Drug Type, Jan. 2015 – Dec. 2021

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

With opioids accounting for a declining share of prescription drug IMRs in recent years, other drugs that are increasingly prescribed as alternative painkillers – often on an off-label basis – have seen their share of the pharmaceutical IMRs increase sharply. For example, since 2015, the percentage of prescription drug IMRs involving musculoskeletal drugs [*i.e.*, muscle relaxants such as cyclobenzaprine HCL (common

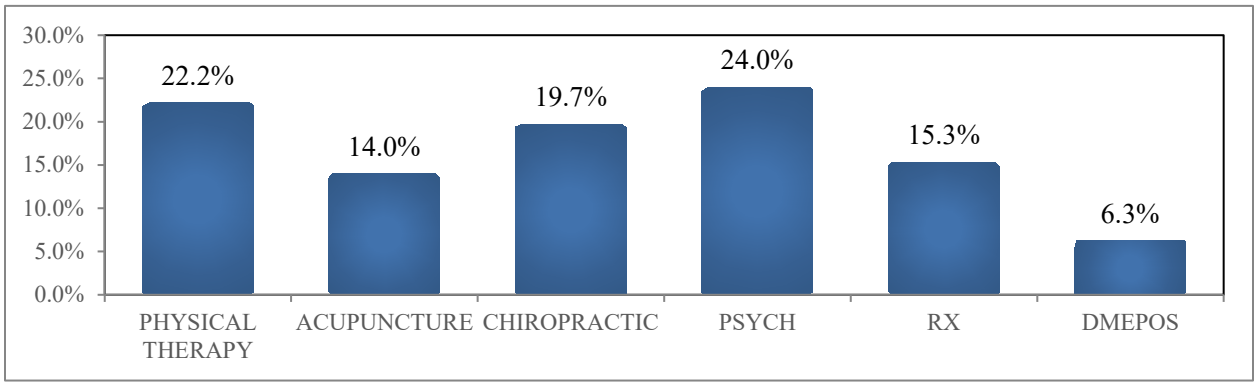
brand name Flexeril), baclofen (common drug name Lioresal), and tizanidine (common brand name Zanaflex)] has increased from 11.9 percent to 17.5 percent. The increase in musculoskeletal drug IMRs started to gain steam in 2018 when the MTUS prescription drug formulary took effect, as under the formulary nearly all of the musculoskeletal drugs are on the Non-Exempt drug list, making them subject to prospective UR. Similarly, anticonvulsants' share of the prescription drug IMRs climbed from 9.6 percent in 2015 to 16.7 percent in 2021, as the two most common anticonvulsants, gabapentin (common brand name Neurontin) and pregabalin (common brand name Lyrica), which together represented 88 percent of the anticonvulsants dispensed to injured workers in 2021, are often used to treat neuropathic pain.

Dermatological drugs also have accounted for an increasing share of pharmaceutical IMRs in recent years, climbing from 9.6 percent of the prescription drug IMRs in 2015 to 16.7 percent in 2021, making them the third most common drug category submitted for IMR in each of the past seven years, with rapid growth in dermatological payments over the prior decade also documented in recent CWCI research.[8] As with musculoskeletal drugs and anticonvulsants, much of that increase occurred after the formulary took effect. The increase in IMR activity involving dermatologicals also coincides with the increased prevalence of high-priced "private label" dermatological products that are similar to inexpensive over-the-counter products, but contain higher concentrations of active ingredients such as menthol, capsaicin, and methyl salicylate, so they are not available as generics. These drugs are usually prescribed for pain relief, and with the increased scrutiny on opioids they have been heavily marketed and distributed to physicians to dispense either directly or via mail order, even though they are not FDA approved.

IMR Reviews of UR Modifications

In 2021, one out of eight IMRs involved a modification, rather than a denial, of a medical request. Any UR modification may be submitted to IMR, including those where the UR physician approves the medical necessity of the service but reduces the quantity to a level consistent with the MTUS. A common example is when a doctor requests a medication with multiple refills, but the UR physician approves the prescription with a single refill or no refills to meet the guidelines. If the doctor thinks additional refills are needed later they can submit another Request for Authorization. In addition to prescription drugs, several other types of service requests tend to be subject to these types of modifications. Exhibit 7 shows six service categories where the authors verified that the service was not modified, only the quantity or purchase arrangement. The six categories represented 82.0 percent of all UR modifications reviewed in IMR in 2021.

Exhibit 7: UR Modifications as a Percent of Total IMRs for Selected Services in 2021



[8] Young, B., Secia, J., Hayes, S. California Workers' Compensation Drug Trends. CWCI Research Update, March 2021.

A closer look shows that in the case of mental health, (psych) and physical therapy, the modifications submitted to IMR last year were almost exclusively changes in the quantity of visits. Modifications to the number of requested visits accounted for 24.0 percent of mental health, 22.2 percent of physical therapy, 19.7 percent of chiropractic, and 14.0 percent of acupuncture service requests that underwent IMR in 2021. Pharmacy modifications – typically limits on the number of refills or, in the case of opioid weaning, limits on the number of pills – accounted for 15.3 percent of the pharmacy services reviewed. DMEPOS modifications were typically for rental versus purchase, or length of time in use and represented 6.3 percent of the DMEPOS reviews. Overall, 10.4 percent of all IMRs in 2021 involved disputes over service modifications in one of the six categories shown in Exhibit 7 rather than the necessity of treatment.

Concentration of IMR Determinations Among High-Volume Providers

As in the Institute's prior analyses of IMR outcomes, the latest analysis found that in 2021, a small number of medical providers accounted for a disproportionate share of the modified or denied medical service requests that were submitted to IMR. A review of the 2021 IMR letters noted a total of 8,238 unique providers who requested the disputed medical services last year, with the top 50 providers associated with 31.1 percent of the IMR letters. Exhibit 8 shows the proportion of service requests originating from the top 10, top 25, and top 50 individual providers in each of the seven years studied, and the proportion that originated with the top 1 percent and top 10 percent of providers based on their IMR volume.

Exhibit 8: Top Providers, Jan. 2015 – Dec. 2021 Determinations

Providers	2015	2016	2017	2018	2019	2020	2021
Top 10	11.9%	11.3%	12.5%	9.5%	9.9%	10.2%	10.7%
Top 25	20.7%	20.3%	21.5%	18.1%	18.6%	19.4%	20.6%
Top 50	29.9%	30.0%	30.8%	28.2%	28.2%	29.9%	31.1%
Top 1% (82)	45.4%	45.3%	45.5%	44.2%	44.1%	39.6%	39.9%
Top 10% (824)	85.4%	85.1%	86.9%	84.6%	83.5%	82.1%	82.6%

A closer look at the medical specialties of the top 10 providers, who were named in 10.7 percent of all IMR determination letters last year, shows that seven were pain management specialists, one was a general practitioner, one was an orthopedist, and one was a physical medicine and rehabilitation specialist.

Discussion

When state lawmakers included IMR in SB 863 a decade ago, they anticipated that IMR volume would decline over time as providers and other stakeholders became familiar with the treatment guidelines. While that did not happen during the first five years of the program – the only exception being a modest 2.6% decline in 2017 – this study shows that after hitting a record 184,725 IMR determination letters in 2018, the number of IMR letters has now fallen for three consecutive years, declining 11.3 percent in 2019, 16.6 percent in 2020 (the first year of the pandemic), and another 2.4 percent in 2021. The 133,494 determination letters issued in 2021 was the lowest annual total since IMR took effect.

While it is impossible to quantify the extent to which the recent decline in IMR volume may be due to increased understanding and adherence to the treatment guidelines, other factors have most certainly come into play. Some of the recent decline in IMR volume can be linked to decreased claim volume during the

pandemic, as pre- and post-pandemic claim counts recorded by the DWC for accident years (AY) 2019, 2020, and 2021 show that systemwide claim volume fell 10.2 percent from AY 2019 to AY 2020. Although the number of claims did rebound in AY 2021, the total claim count only increased 5.1 percent last year, so there were still 30,405 fewer claims in 2021 than in 2019.[9] In addition, some of the decline in IMR since the pandemic was declared in March 2020 is likely due to reductions or delays in treatment as injured workers along with patients covered under other systems hesitated to seek treatment during the pandemic or had difficulty making appointments as the various waves of coronavirus hit the state. Pandemic-related delays were also evident in the data on IMR response times, which declined steadily from 2015 through 2019, but edged up slightly in 2020 and again in 2021, although even during the pandemic they have remained well below pre-2019 levels and well within the statutory requirements.

At the same time, this study, as well as CWCI's two prior IMR analyses,[10] traced much of the downtrend in IMR volume since 2018 to the steady decline in prescription drug disputes, with the most recent data showing disputes involving modifications or denials of prescription drug requests have declined from 46.4 percent of all IMRs in 2018 to 34.9 percent in 2021. The decline in pharmaceutical disputes coincided with the implementation of two key reforms: the adoption of ACOEM's Chronic Pain and Opioid Guidelines, which were incorporated into the MTUS in December 2017, followed shortly thereafter by the implementation of the MTUS Prescription Drug Formulary in January 2018. To the extent that these measures were designed to ensure that medications – including opioids and other controlled substances – are dispensed to injured workers judiciously and appropriately, the ongoing decline in pharmaceutical disputes noted in this study provides strong evidence that these reforms have been effective. That finding is further bolstered by the ongoing decline in IMR disputes involving opioids, which as noted in Exhibit 6a, have dropped from nearly one third of all prescription drug disputes in 2018 to just over a quarter of the pharmaceutical disputes in 2021.

The impact of the formulary and the Chronic Pain and Opioid Guidelines can also be seen in the uphold rates for opioid IMRs and IMRs involving other categories of drugs that can be addictive or where there can be dangerous drug interactions. The study found that the uphold rate on opioid IMRs jumped from 89.5 percent in 2018 to 93.1 percent in 2021, the highest level since IMR first took effect, while the uphold rate for IMRs involving musculoskeletal therapy drugs, which are on the formulary's Non-Exempt drug list and subject to prospective UR, rose from 95.8 to 98.5 percent. Over the same four-year span, the uphold rate for anticonvulsant IMRs increased from 80.4 to 91.2 percent, and the uphold rate for IMRs involving antidepressants increased from 75.8 to 82.4 percent. Meanwhile, several categories of drugs that have consistently had high IMR uphold rates continued to receive close scrutiny, with IMR physicians confirming UR modifications or denials of disputed requests for dermatological drugs, hypnotics, anti-anxiety drugs, and compounded drugs between 94.6 and 98.7 percent of the time in 2021.

With prescription drug disputes accounting for a much smaller share of the IMRs since 2018, there has been an ongoing shift in the mix of requested services that are submitted to IMR. For example, physical therapy; injections; and DMEPOS have seen their share of the IMRs increase by 2.4 to 3.1 percentage points since 2018, though with overall IMR volume down by more than 51,000 cases over the past three years, the increased percentages of IMRs recorded by most nonpharmaceutical categories do not mean the number of IMRs involving those types of services have increased, only that the volume of IMRs involving

[9] As of February 28, 2022, the DWC's Workers' Compensation Information System had recorded 608,393 claims for AY 2019, 546,370 claims for AY 2020, and 574,290 claims for AY 2021.

[10] Bullis, R., David, R., "IMR Decisions, January 2014 Through December 2020." CWCI Research Update, April 2021; Bullis R., David, R. IMR Decisions, January 2014 Through March 2020. CWCI Research Update, May 2020.

those services declined less than the steep drop noted for pharmaceutical IMRs. In fact, a closer look at the breakdown of IMR volume by medical service category over the past four years shows that all 12 medical service categories reviewed in the study had fewer IMRs in 2021 than in 2018, though some categories registered much steeper declines than others.

The recent declines in IMR volume were not only noted across all medical service categories, but across all geographic regions of the state as well. However, comparing 2021 claim and IMR distributions across eight regions the authors found that IMR volume last year was disproportionately high in the Bay Area, which had 17.8 percent of all workers' compensation claims in the state, but 25.7 percent of the IMR letters. The nearly eight-percentage point differential between the Bay Area's share of the claims and its share of the IMR decision letters was far greater than the spread noted in Los Angeles County, which had 24.7 percent of the claims and 27.6 percent of the IMR letters. In contrast, IMRs were disproportionately low in the Inland Empire/Orange County, which had 20.7 percent of the claims, but 13.9 percent of the IMR letters, San Diego, which had 8.1 percent of the claims but 6.8 percent of the IMR letters, and in the North Counties/Sierras which had 3 percent of the claims but only 1 percent of the IMR letters, while in the rest of the percentage of claims nearly matched the percentage of IMR letters.

One factor that likely contributed to the disproportionate share of IMR letters sent to the Bay Area is the prevalence of pain management specialists in the region. As in prior years, this study found that a small number of providers continued to drive much of the IMR activity in 2021, with the top 1 percent of requesting physicians (82 doctors) accounting for nearly 40 percent of last year's disputed service requests and the top 10 individual physicians accounting for 10.7 percent of the disputed requests. A closer look at this list of providers shows that five of the top six were pain management specialists, and four of the top six were located in the Bay Area. Furthermore, the top three physicians based on the number of disputed service requests were all Bay Area pain management specialists, which undoubtedly contributed to the high percentage of IMRs – especially prescription drug IMRs – emanating from the region.

The outcomes data show that last year's overall IMR uphold rate of 92.0 percent was up from 89.4 percent rate in 2020, and the highest uphold rate since IMR took effect in 2014. On the flip side, in 8.0 percent of the IMR determinations issued last year the independent medical reviewer either modified or reversed the UR physician's request and found the medical service was necessary and appropriate. The 8.0 percent overturn rate was the lowest overturn rate since IMR was introduced in 2014, suggesting that for the most part, UR physicians have correctly applied the evidence-based guidelines in making their determinations. That is not to say, however, that injured workers can never prevail in IMR, and clearly much depends on the type of service requested.

As in previous years, a significant share of the disputed medical services submitted to IMR in 2021 involved modifications where the UR physician approved the medical necessity of a service but reduced the requested quantity to a level consistent with the MTUS guidelines or changed from a purchase of DMEPOS to rental. The authors estimate that disputes over these types of modifications comprised nearly one out of every eight IMRs conducted last year. Given the time and expense involved in conducting an IMR, it is debatable whether disputes over these types of modifications should be eligible for IMR, especially given that there is no disagreement over the appropriateness of the treatment and the physician can request additional treatment if the recommended level of service proves beneficial.

The Institute is continuing to monitor IMR activity and outcomes and will issue additional analyses and reports on IMR as new data becomes available and new issues and trends emerge.

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California Workers' Compensation Institute

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