



Spotlight Report

Independent Medical Review Decisions January 2014 through December 2016

By Rena David and Robby Bullis

March 2017

Executive Summary

Key Findings

- The number of IMR determination letters issued in 2016 increased to 176,002 letters; up 6.3 percent from 165,525 letters in 2015, while the number of primary individual services reviewed under IMR increased 6.5 percent from 290,885 to 309,824.¹
- IMR physicians upheld UR modifications and denials 91.2 percent of the time in 2016, up from 88.4 percent of the time in 2015, which puts the IMR uphold rate back to the 2014 level.
- In 2016, the volume of IMR in the Los Angeles region and in the Bay Area was disproportionately high relative to medical service volume in those regions, while IMR volume in the Northern Counties, the Sierras, and San Diego County was disproportionately low.
- A small number of physicians continue to drive a high volume of IMR requests, with the top 1 percent of requesting physicians accounting for 44 percent of the disputed service requests in 2016, and the top 10 individual physicians linked to 11 percent of the disputed service requests. Furthermore, 7 of the 10 individual physicians associated with the highest number of IMR requests in 2015 were also on the top 10 list for 2016.
- Requests for pharmaceuticals continue to top the list of services submitted for IMR, accounting for nearly half of the services reviewed in 2016. Of those pharmaceuticals requested, 29 percent were opioids.

1. Individual service refers here to 'primary' decisions. Decisions that are 'associated' (and subservient) to a primary decision are not counted, as the 'uphold/overturn' choice made on the primary service determines the result of the ancillary service.

Background/Objective

California law requires workers' compensation claims administrators to have a utilization review (UR) program overseen by a medical director to ensure that treatment given to injured workers is supported by clinical evidence outlined in medical guidelines adopted by the state. While most treatment reviewed in UR is approved, in 2012, state lawmakers enacted SB 863, which included the adoption of Independent Medical Review (IMR). The intent of IMR is to allow injured workers to dispute a UR modification or denial decision and to get an independent medical opinion on whether the service is medically necessary under the evidence-based medicine standards, and to preclude unproven, unnecessary, and potentially harmful treatment.

The IMR process first took effect in January 2013, and a year later CWCI initiated a series of studies that examined IMR outcomes based on data gleaned from IMR determination letters through March 2016.² This report follows up on those studies by generating summary statistics compiled from IMR determination letters issued from January 2014 through December 2016.

The report identifies:

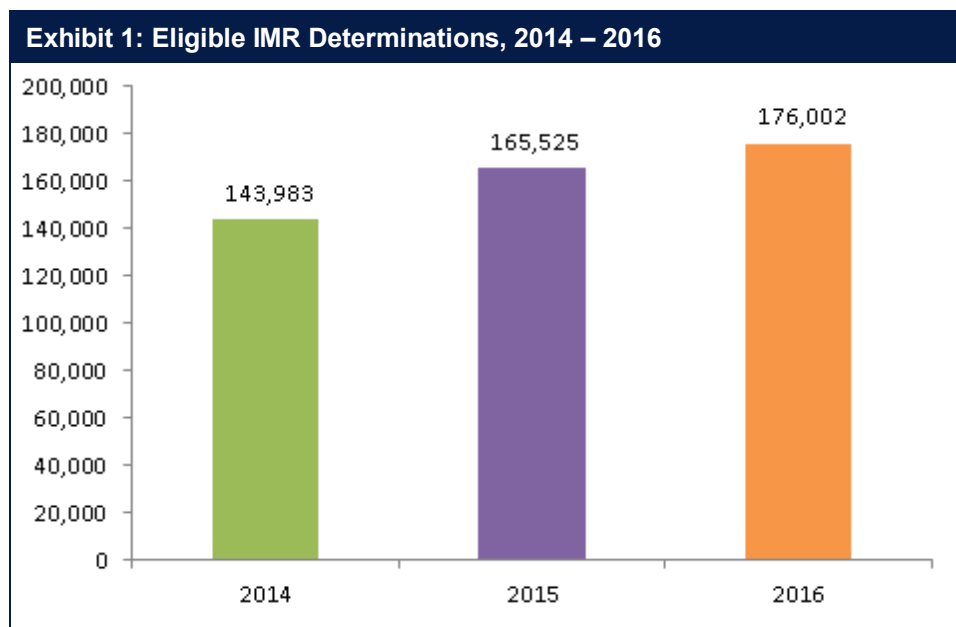
- the total number of 2014-2016 Independent Medical Review (IMR) determination letters and the processing time by month
- the average number of medical service decisions per letter issued in 2016
- 2016 decision counts and determinations (UR upheld or overturned) by:
 - Type of service
 - Pharmaceutical IMRs by drug type
 - Provider concentration
 - Year of injury
 - Region
 - Top providers

2. David, R., Ramirez, B. and Swedlow, A. "Medical Dispute Resolution: Utilization Review and Independent Medical Review In the California Workers' Compensation System," CWCI Research Note, January 2014; David, R., Jones, S., Ramirez, B. and Swedlow, A. "Independent Medical Review Outcomes In California Workers' Compensation," CWCI Research Update," April 2015; David, R., Jones, S., Ramirez R. and Swedlow, A. "Medical Review and Dispute Resolution in the California Workers' Compensation System," CWCI Research Update, December 2015; David, R. "IMR Decisions, January Through December 2015, CWCI Spotlight Report, February 2016; David, R., 1st Quarter 2016 IMR Outcomes," CWCI Spotlight Report, June 2016.

Results

Number of IMR Determination Letters

For this study, the authors obtained the 2014-2016 IMR determination letters from Maximus Federal Services (Maximus), the Independent Medical Review Organization that is under contract with the California Division of Workers' Compensation to manage the IMR process. According to the DWC, the total number of IMR determination letters issued by Maximus grew from 143,983 in 2014 to 165,525 in 2015 (+15.0 percent), and then increased to 176,002 in 2016 (+6.3 percent).³



3. The numbers shown on this page are from the Division of Workers' Compensation IMR update presented by Acting Administrative Director, George Parisotto, at the DWC 2017 Annual Conference in February 2017. The Institute analysis reflects data derived from 477,045 Final Determination Letters provided by Maximus. The letters were issued from 2014-2016 and comprise a 98.3 percent subset of the 485,510 letters reported by the DWC for this period and 99.3 percent of letters reported for 2015 and 2016.

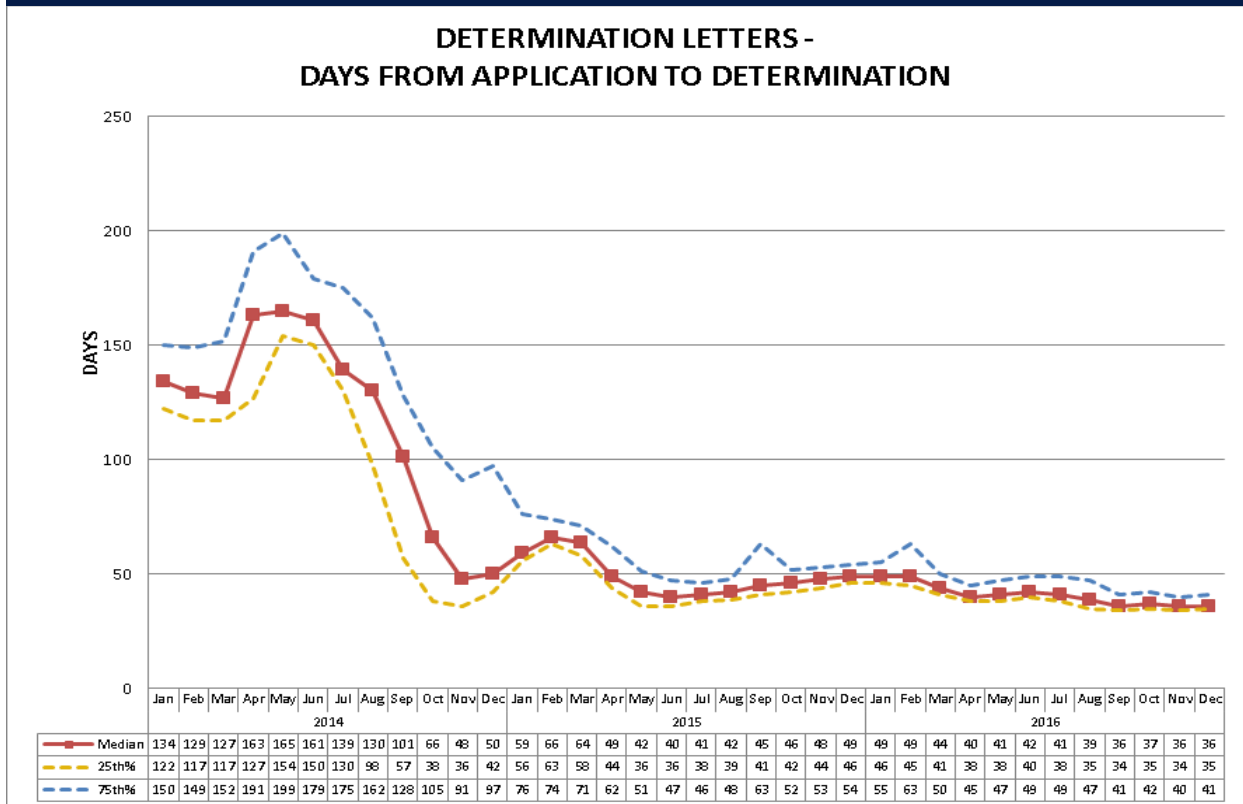
IMR Response Time

Each IMR determination letter shows the date of the UR denial or modification, the date the IMR application was received, and the date of the determination letter, which is used as the review completion date.

After Maximus receives an IMR application, it must confirm the eligibility of the application; request, receive and process the medical records; and assign the case to a reviewing physician to complete the review. State law requires that Maximus issue an IMR determination letter within 30 days of receiving the application and all necessary records (up to 20 days are allowed for the receipt of necessary records, so Maximus has up to 50 days to issue the determination letter). Exhibit 2 shows the median time elapsed between Maximus' receipt of an IMR application and the date it issued the decision letter, with results broken out by the month in which the decision was issued.

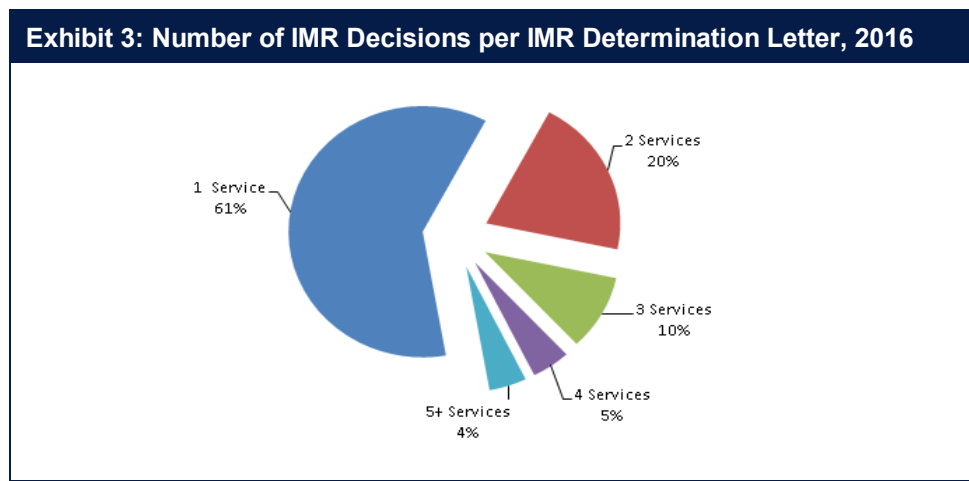
As shown, the median IMR response time peaked in the second quarter of 2014, ranging between 161 and 165 days during that 3-month span. Decision times declined precipitously in 2015 and continued to improve in 2016, with the median number of days from Maximus' receipt of the application to the issuance of the decision letter ranging between 36 and 49 days in 2016. In addition, the 25th and 75th percentile figures noted in Exhibit 2 indicate that there is now less variation in the results, with the spread between the median and the first and third quartile values narrowing considerably from the 2014 levels.

Exhibit 2: Days from IMR Application Date to Date of Decision Letter



Number of Decisions per Determination Letter

IMR applications and determination letters often involve requests for multiple medical services. Exhibit 3 shows the distribution of the 2016 IMR letters by the number of requested medical services covered in the determination letter. Of the IMR determination letters issued in 2016, 61 percent involved a decision on a single medical service request while the other 39 percent had decisions on multiple services, as noted below. The 2016 distribution shows little change from the prior year; 62 percent of the 2015 letters included determinations on single services, 20 percent included decisions on two services, 9 percent had decisions on three services, 5 percent included decisions on four services and 4 percent had decisions for five or more services.



IMR Uphold Rates

Each medical service within an IMR letter is adjudicated separately by the IMR reviewer except when the decision is linked to the necessity of a primary service, such as surgery. As in prior analyses, the authors removed those associated services when calculating the proportion of services where the UR modification or denial was upheld vs. overturned. In prior studies, the definition of associated services was based exclusively on explicit statements by the reviewer. This study expanded the definition to include any service described as pre-operative. About 7 percent of the services on the decision letters were identified as associated services. Of the remaining 309,824 requests, 91.2 percent of the UR modifications and denials were upheld by the IMR physician, which is greater than the 88.4 percent uphold rate in 2015 and matches the 91.2 percent rate from 2014. This consistently high uphold rate shows that the vast majority of disputed modifications and denials made by UR physicians are found to be appropriate given the medical evidence.

Exhibit 4: 2016 IMR Uphold Rates

Result	2014		2015		2016	
	Services	Percentage	Services	Percentage	Services	Percentage
Upheld UR	233,598	91.2%	257,285	88.4%	282,505	91.2%
Overtured UR	22,417	8.8%	33,600	11.6%	27,319	8.8%
Total	256,015	100.0%	290,885	100.0%	309,824	100.0%

IMR Distribution and Uphold Rates by Medical Service Category

Medical service requests that are modified or denied by a UR physician and then submitted for IMR are heavily concentrated in just a few medical service categories, led by pharmaceutical requests, which, as in the prior studies, accounted for nearly half of all IMR reviewed services in 2016. Physical therapy; injections; durable medical equipment, prosthetics, orthotics and supplies; and MRI/CT/PET scans rounded out the top five categories of medical services that underwent IMR in 2016, and together these five categories of treatment accounted for more than three quarters of the 2016 IMR determinations.

The uphold rates were also fairly consistent across most service categories, ranging from about 85 to 95 percent. As in previous years, the IMR uphold rate was lowest (78.9 percent) for Evaluation and Management (E/M) service requests, which consisted primarily of referrals for consultations, though E/M requests continued to account for a very small share (1.7 percent) of IMR reviewed services in 2016.

The overall service uphold rate across all categories increased from 88.4 percent in 2015 to 91.2 percent in 2016, a return to the overall rate from 2014. Uphold rates increased across the board, with increases ranging from a low of 0.9 percentage points in Physical Therapy to a high of 10.7 percentage points in E/M.

Exhibit 5: 2016 IMR Distribution & Uphold Rates by Medical Service Category						
	2014	2015	2016	2014	2015	2016
Service Requested	% of Service Requests			% Upheld		
Pharmaceuticals	44.5%	49.1%	48.0%	91.9%	89.7%	92.5%
Physical Therapy	9.4%	8.8%	9.2%	93.9%	92.5%	93.4%
Injections	6.9%	6.8%	7.3%	91.8%	87.3%	89.4%
DME, Prosthetics, Orthotics, and Supplies	9.3%	7.8%	7.2%	93.5%	90.0%	91.6%
MRI/CT/PET	3.7%	4.1%	4.4%	89.1%	86.4%	88.5%
Surgery	4.3%	3.6%	3.6%	87.9%	85.9%	89.0%
Diagnostic Test / Measurements	4.5%	3.5%	3.5%	87.8%	84.6%	91.3%
Laboratory Services	2.6%	2.7%	3.2%	86.9%	82.9%	88.8%
Acupuncture	2.1%	2.2%	2.2%	94.1%	91.6%	93.6%
Psych Services	2.1%	1.7%	1.8%	85.0%	79.6%	83.2%
Evaluation and Management	1.7%	1.7%	1.7%	78.7%	68.2%	78.9%
Chiropractic Manipulation	1.8%	1.6%	1.7%	95.3%	90.7%	91.9%
Other	7.2%	6.4%	6.3%	89.9%	85.5%	88.1%
Total	100.0%	100.0%	100.0%	91.2%	88.4%	91.2%

Prescription Drug IMR Distribution and Uphold Rates by Drug Category

Disputes involving prescription drug requests can arise over a number of factors, including the appropriateness and strength of the drug, the quantity and duration of the prescription, contra-indications with other prescribed medicines, all of which are considered by UR and IMR physicians. About 149,000 prescription drug requests went through IMR in 2016. In 93 percent of those cases, the independent medical review physicians upheld the UR physicians’ modification or denial. Exhibit 6 shows the distribution of the pharmaceutical IMR decisions by drug category, as well as the percentage upheld or overturned by IMR.

As in the past, requests for opioid painkillers topped the list in 2016, accounting for 29 percent of all pharmacy IMR decisions, and the UR decision to modify or deny these requests was upheld in 90 percent of the IMR determinations. Uphold rates for all drug categories increased from 2015 to 2016. Antidepressants (often used in occupational medicine for neuropathic pain) had the highest IMR overturn rates in both 2015 and 2016, but the rate declined from 27 percent in 2015 to 17 percent in 2016 on a similar volume (4 percent of all drug requests).

The use of compounded drugs has been a major source of concern and scrutiny in the workers’ compensation system. Compounded drugs are not FDA approved and are individually formulated in the physician’s office through kits or other means, or in compound pharmacies.

For the purposes of this study, the authors used refined search logic to separate requested pharmaceuticals into FDA-approved and over-the-counter drugs versus compounded drugs (typically creams or gels) as identified in Exhibit 6, with further detail shown in Exhibit 7.⁴ Requests for these compounded drugs accounted for 6.2 percent of the 2016 IMRs, down from 8.0 percent for the IMRs in 2015, and had very low IMR overturn rates in both years: 0.7 percent in 2015 and 0.6 percent in 2016.

Exhibit 6: Distribution & Outcomes of Pharmaceutical IMR Decisions by Drug Type – 2016

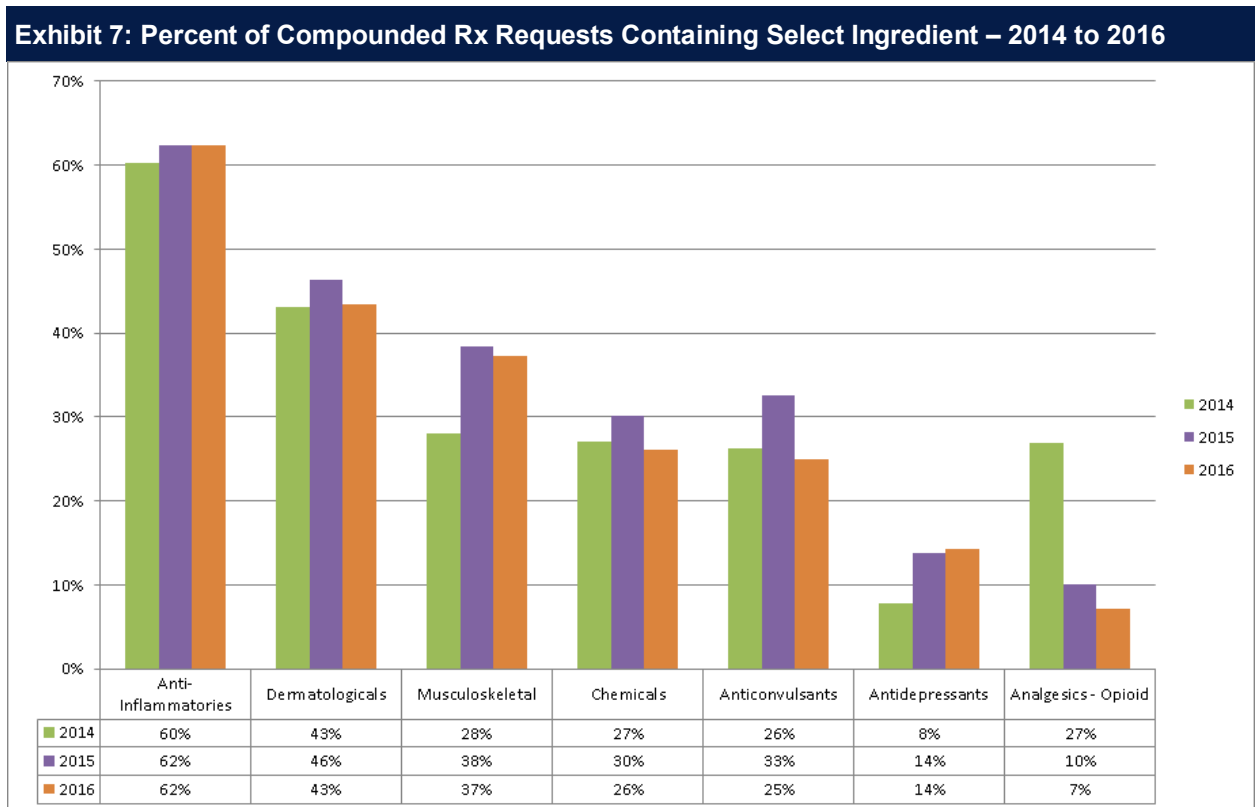
	2014	2015	2016	2014	2015	2016
Service Requested	% of Service Requests	% of Service Requests	% of Service Requests	% Upheld	% Upheld	% Upheld
Multiple	8.6%	8.0%	6.2%	99.0%	99.3%	99.4%
Analgesics-Opioid	26.2%	29.7%	28.5%	90.7%	88.1%	90.3%
Musculoskeletal Therapy	12.0%	12.2%	13.1%	97.0%	96.2%	97.0%
Dermatologicals	10.5%	8.8%	9.6%	95.9%	94.5%	96.1%
Anti-Inflammatory	6.4%	7.2%	8.6%	85.9%	80.5%	89.2%
Ulcer Drugs	7.9%	7.2%	7.2%	88.3%	89.0%	93.0%
Anticonvulsants	4.5%	5.1%	5.5%	84.3%	80.8%	87.1%
Antidepressants	3.4%	3.6%	3.9%	76.5%	73.1%	83.2%
Hypnotics	3.6%	3.8%	3.7%	97.1%	97.4%	98.3%
Antianxiety	2.7%	2.7%	2.7%	97.9%	96.5%	97.3%
Analgesics - Non-Narcotic	0.5%	0.8%	0.9%	88.6%	86.6%	91.7%
Other	13.6%	10.9%	10.2%	91.1%	88.1%	91.1%
Total	100.0%	100.0%	100.0%	91.9%	89.7%	92.5%

4. The refined search logic applied to the prescription drug data in the study sample allowed the authors to more accurately identify compounded medications, so the proportions of 2014 – 2016 IMRs that involved compounded drug requests, as shown in Exhibit 6, represent more precise results than in CWCI’s prior studies.

Anti-inflammatory drugs (Flurbiprofen, Ketoprofen, Diclofenac) were the most common ingredient in the requested compounded drugs that went through IMR in 2016, with 62 percent of the compounded drug requests containing an anti-inflammatory.

Analgesic opioids were included in 27 percent of the compounded drug requests that went through IMR in 2014, but that percentage dropped to 7 percent in 2016, with Tramadol being the most common opioid in requested compounds.

Antidepressants were included in 14 percent of the 2016 compounded drug requests for which an IMR determination was rendered. As in prior years, a small number of medical providers continued to generate a large percentage of the disputed requests for compounded drugs in 2016, with one physician accounting for 16 percent of the antidepressant requests that went through IMR, and the top 15 physicians accounting for close to 50 percent of the requests.



2016 IMR Letters, Services and Uphold Rates by Injury Year

Each IMR determination letter includes the date of injury on the underlying claim, so the authors used this information to group the 2016 IMR determinations by accident year. Exhibit 8 shows the distribution of 2016 IMR letters and medical service requests, as well as the uphold rates, for claims from five time periods: pre-AY 2004; AY 2004-2009; AY 2010-2011, AY 2012-2013, and AY 2014-2016.

A little over two-thirds of the 2016 IMR determination letters and disputed medical services addressed in those letters involved claims with dates of injury prior to 2014. As in the prior studies, however, the age of the claim had little influence on the IMR outcome, as the uphold rates for all four injury year time frames studied were between 90 and 92 percent.

Exhibit 8: 2016 IMR Letters, Services and Outcomes by Injury Years			
Injury Year Category	% Letters	% of Services	UR Decision Upheld
<2004	18.6%	19.2%	90.7%
2004-2009	17.7%	18.3%	91.0%
2010-2011	12.1%	12.2%	91.3%
2012-2013	18.8%	18.6%	91.0%
2014-2016	32.8%	31.8%	91.7%
Grand Total	100.0%	100.0%	91.2%

Distribution of IMR Decisions and Uphold Rates by Region

An address for the injured worker or his or her representative also is noted on each IMR determination letter, so the authors used the ZIP codes from the 2016 letters to determine the prevalence of IMR in different regions of the state. The proportion of IMR decisions in each geographic region was then compared to the percentage of all services from each region as identified by CWCI’s Industry Research Information System⁵ to see where IMR was disproportionately high or low relative to service volume.

When compared to the percentage of services in each region, the volume of 2016 IMR decisions was disproportionately high in Los Angeles and the Bay Area, which together accounted for 52.9 percent of all decisions, but only 38.8 percent of all services.

The regional breakdown shows slight variations in uphold rates among different areas of California ranging from a low of 88.7 percent in San Diego to a high of 93.2 percent in Los Angeles.

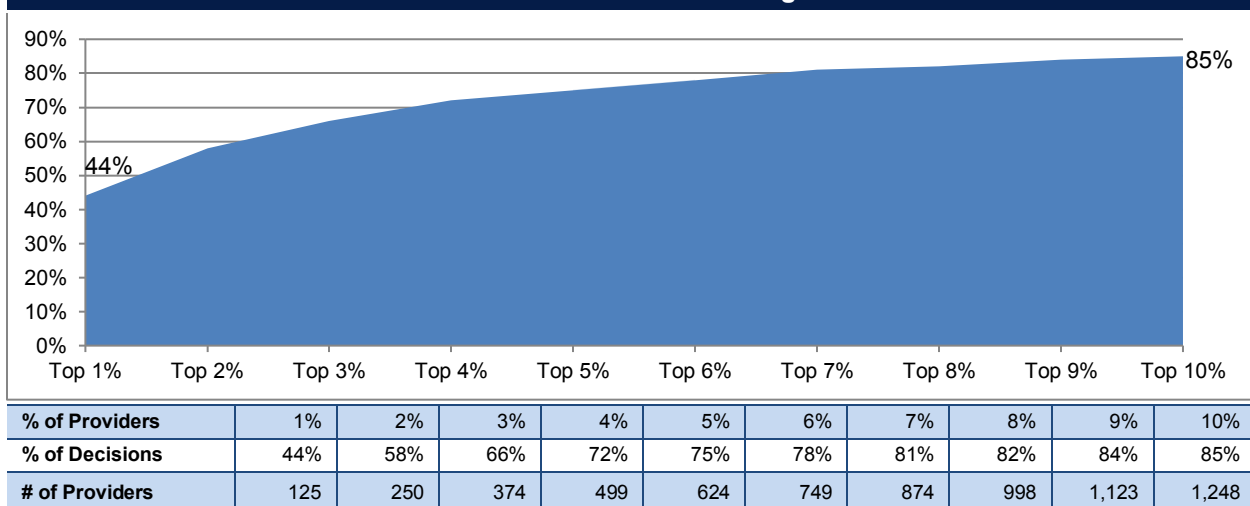
	% of Decisions	% of Services	% Upheld
Los Angeles	32.8%	23.6%	93.2%
Bay Area	20.1%	15.2%	89.6%
Valleys	15.7%	18.5%	90.8%
Inland Empire/Orange	14.4%	17.6%	91.1%
Central Coast	5.9%	7.4%	90.0%
San Diego	5.0%	7.2%	88.7%
Other/Unknown	4.1%	5.2%	90.5%
Northern Counties	1.0%	3.6%	89.3%
Sierras	0.9%	1.7%	89.2%
Total	100.0%	100.0%	91.2%

5. The IRIS database is a proprietary database maintained by CWCI that contains detailed information, including employee and employer characteristics, medical service data, and benefit and other administrative cost detail on more than 5.3 million California workers’ compensation claims. The regional service distribution was based on data from July 1, 2015 to June 30, 2016.

Concentration of IMR Determinations among High-Volume Providers

IMR determination letters also include the names of the medical providers who requested the disputed medical services. The IMR letters issued in 2016 identified 12,479 unique provider names. As in the prior research, the latest data show that a small number of providers accounted for a disproportionate share of the medical service requests that went through IMR in 2016. Exhibit 9 shows that the top 1 percent of medical providers named in the 2016 IMR letters (125 individuals) were linked to 44 percent of the disputed medical service requests, while the 1,248 physicians who comprised the top 10 percent were named in 85 percent of the disputed requests that went through IMR. Furthermore, a comparison of the results from 2015 found that 78.4 percent (978) of the 1,248 physicians who had the most disputed medical service requests that went through IMR in 2016 were also on the prior year’s list of top volume providers.

Exhibit 10: Percent of 2016 IMR Decisions Associated with High-Volume Providers



The high concentration of disputed medical services associated with a small number of high-volume medical providers is underscored by Exhibit 11, which shows the percentage of IMR determination letters, disputed services, and claims linked to the 10 physicians with the highest number of IMR decision letters in 2016. Together, these 10 physicians – primarily orthopedists and pain management specialists – were associated with 34,492 IMR service decisions rendered in 2016 – 11.1 percent of all IMR determinations made during the year. Comparing the top 10 provider lists from 2015 and 2016 shows that 7 of the 10 providers from 2015 were still on the top 10 list in the following year.

Exhibit 11: 2016 IMR Letters and Decisions – Top 10 Providers

Requesting Provider	# of IMR Decision Letters	# of Medical Service Decisions	% of Total Medical Service Decisions	% of UR Decisions Upheld by IMR	Rank in 2015	Requesting Physician Specialty	Requesting Provider Region
Provider 1	995	4,328	1.4%	98.8%	313	General Practice	SCAL
Provider 2	2,445	4,122	1.3%	86.0%	5	Phys Med & Rehab	NCAL
Provider 3	1,504	4,021	1.3%	96.8%	4	Orthopedist	SCAL
Provider 4	1,501	3,954	1.3%	94.8%	1	Orthopedist	NCAL
Provider 5	1,904	3,790	1.2%	90.5%	6	Orthopedist	SCAL
Provider 6	1,999	3,213	1.0%	86.0%	10	Phys Med & Rehab	NCAL
Provider 7	1,320	3,136	1.0%	96.1%	19	Orthopedist	SCAL
Provider 8	1,388	2,792	0.9%	90.2%	11	Pain Management	SCAL
Provider 9	1,848	2,687	0.9%	82.3%	8	Pain Management	NCAL
Provider 10	1,673	2,449	0.8%	82.0%	9	Pain Management	NCAL
Top 10	16,577	34,492	11.1%	87.1%			

Summary

This study finds that the volume of Independent Medical Review letters increased 6.3 percent from 2015 to 2016, while the volume of IMR decisions increased 6.5 percent. The uphold rates were fairly consistent as the IMR physicians concurred with the UR decisions in about 9 out of 10 cases in both years. As in the Institute's earlier analyses of 2014 and 2015 IMRs, nearly half of the requested medical services were prescription drug requests, with over a quarter of those being requests for opioid analgesics. Recent legislation, SB 1160 (Utilization Review) and AB 1124 (Formulary), will drive changes in the services eligible for prospective utilization review. These initiatives have the potential of aligning more treatment to the California Medical Treatment Utilization Schedule, which in turn should lower IMR volume in the future. CWCI will continue to monitor Independent Medical Review activity in order to assess the impact of these and other changes to the workers' compensation medical dispute resolution system.

Acknowledgements

The authors would like to thank the following CWCI staff members for their input and contributions in the drafting and preparation of this report:

- **Brenda Ramirez**, Claims and Medical Director, California Workers' Compensation Institute.
- **Stacy L. Jones**, Senior Research Analyst, California Workers' Compensation Institute.
- **Bob Young**, Communications Director, California Workers' Compensation Institute.

California Workers' Compensation Institute

The California Workers' Compensation Institute, incorporated in 1964, is a private, nonprofit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system. Institute members include insurers that collectively write more than 83 percent of California workers' compensation direct written premium, as well as many of the largest public and private self-insured employers in the state. Additional information about CWCI research and activities is available on the Institute's website (www.cwci.org).

The California Workers' Compensation Institute is not affiliated with the State of California. This material is produced and owned by CWCI and is protected by copyright law. No part of this material may be reproduced by any means, electronic, optical, mechanical, or in connection with any information storage or retrieval system, without prior written permission of the Institute. To request permission to republish all or part of the material, please contact CWCI Communications Director Bob Young (byoung@cwci.org).

CWCI Spotlight Reports are published by the California Workers' Compensation Institute.

1333 Broadway, Suite 510
Oakland, CA 94612
<http://www.cwci.org>

Copyright ©2017 California Workers' Compensation Institute. All rights reserved