

2019 Independent Medical Review (IMR) Report: Analysis of 2018 Data

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Executive Summary

In September 2012, Governor Brown signed into legislation Senate Bill (SB) 863. This reform of the workers' compensation system in California included Independent Medical Review (IMR), which went into effect January 1, 2013. Now in its seventh year, IMR continues to provide expedient, efficient resolution of disputes over medical necessity for injured workers treated in the state of California workers' compensation system.

In 2018, the Independent Medical Review Organization (IMRO) processed 252,565 applications, a slight increase from 2017. Of those, 74% (185,783) were determined to be eligible for review. Concurrently, the IMRO issued 184,733 IMR determinations, a 7% rise from the prior year. At the end of 2017, the average length of time the IMRO took to issue a determination, after the receipt of all necessary medical records, was fourteen days. By the end of 2018, this decreased to a monthly average of nine days.

Overall, the IMRO *overturned* 10.3% of the utilization review decisions that denied treatment requests made by physicians treating injured workers. Analysis of several variables, including the geographic region of the injured worker, the time elapsed since the worker's occupational injury occurred, and representation by an attorney or other entity acting on behalf of the worker, shows similar rates of overturned case decisions.

The highest number of requests was for *pharmaceuticals*, which comprise 42% of the issues in dispute, with opioids the most common drug class (33% of drug requests). As in previous years, the second- and third-highest number of requests were for *diagnostic tests* (e.g. imaging, radiology) (16% of requests) and *rehabilitation services* (e.g., physical therapy, chiropractic) (15%). The treatment request denials that were overturned most often were for *behavioral and mental health services* (22% overturned) and *evaluation and management*, which include specialist consultations and dental services (18% overturned).

Refinement of the service categories continued through 2018, yielding a more comprehensive list of services and pharmaceuticals for tracking decision outcomes. These categories also serve as a foundation for the IMR Search Tool, which features all 843,000 case decisions issued from 2013 to 2018. This year's report lists rates of IMR decisions upheld and overturned for over 200 distinct medications and 160 specific medical services.

Changes in the Medical Treatment Utilization Schedule (MTUS) that took effect in 2018 include the new drug formulary and the update of several evidence-based guidelines. Expert reviewers for IMR apply these guidelines to their evaluations of medical necessity, citing the Chronic Pain, Low Back Disorders, and Opioid Guidelines most often.

Introduction

In September 2012, Governor Brown signed into legislation SB 863. This reform of the workers' compensation system in California included Independent Medical Review (IMR), which went into effect January 1, 2013. IMR is an efficient, expedient process for resolving disputes over the appropriateness of medical treatment recommended by physicians for injured workers but rejected in the utilization review (UR) process. The expert reviewers follow the principles of evidence-based medicine to determine the medical necessity of the requested treatment. This report analyzes the progress in this program's sixth year.

About IMR

A UR decision modifying or denying a treatment request because it is not medically necessary is final and in effect for one year unless it is overturned through IMR. The IMR process requires that appropriately qualified independent medical professionals determine the medical necessity of recommended treatment based on the [Medical Treatment Utilization Schedule \(MTUS\)](#).

To dispute a UR denial or modification on one or more requested treatments, injured workers or their legal representatives must, within 30 days, submit a signed IMR application that has been completed (except for the signature) by the UR claims administrator, along with a copy of the UR decision. Upon receipt of an eligible application, the Independent Medical Review Organization (IMRO) requests medical records from the claims administrator, the worker, the attorney (if the worker is represented), and the requesting physician.

After it receives the medical records, the IMRO assigns the case to an expert physician reviewer. Unless the case is terminated or withdrawn during the process, it is resolved when the assigned physician reviewer communicates the IMR decision(s) to the worker or representative, employer or insurer, and requesting physician in a Final Determination Letter (FDL). Copies of FDLs are publicly available on the [DWC website](#).

The cost of IMR is borne by employers through direct payment to the IMRO. Maximus Federal Services has been the IMRO since the program's inception in 2013 and is under contract to provide IMR through 2019.

For further information on the IMR process, see Appendix A.

Analysis of 2018 IMR Data

The IMRO provides the Division of Workers' Compensation (DWC) with case and treatment data for all completed case decisions, which includes information directly from the IMR application; details on the types of treatment in review from the UR reports; and evidence cited by the expert reviewers in their determination of medical necessity. Some demographic information has been taken directly from the FDL, de-identified, and aggregated for review and analysis.

All treatment requests for cases issued in 2018 were assigned specific service categories, to assist with analysis of particular types of treatments and their medical necessity resolutions. Appendix I lists the frequency of requests and outcome ratios for broad categories, subcategories, and types of "clinical" (e.g., non-pharmaceutical) services. Appendix J contains the outcome ratios for drug classes and for particular medications requested most frequently.

Geographic regions were determined from the ZIP Code of the IMR application as listed in the case file. The ZIP Code was matched against the monthly US Postal ZIP Code Table identifying ZIP Codes by county. Counties were then grouped by region. (See Appendix E.)

IMR Program Enhancements in 2018

- DWC adopted a [formulary](#) that took effect January 1, 2018; it includes a listing of "exempt" drugs that are available without prospective UR. The formulary, along with the treatment guideline changes in the MTUS implemented in late 2017, provide evidence-based medical treatment recommendations for the care of California's injured workers.
- Throughout 2018, the IMRO and the DWC developed enhanced procedures for data transmission. [Metrics](#) related to program activity are updated frequently, and IMR decisions continue to be added to the DWC IMR [search tool](#) in a timely manner.

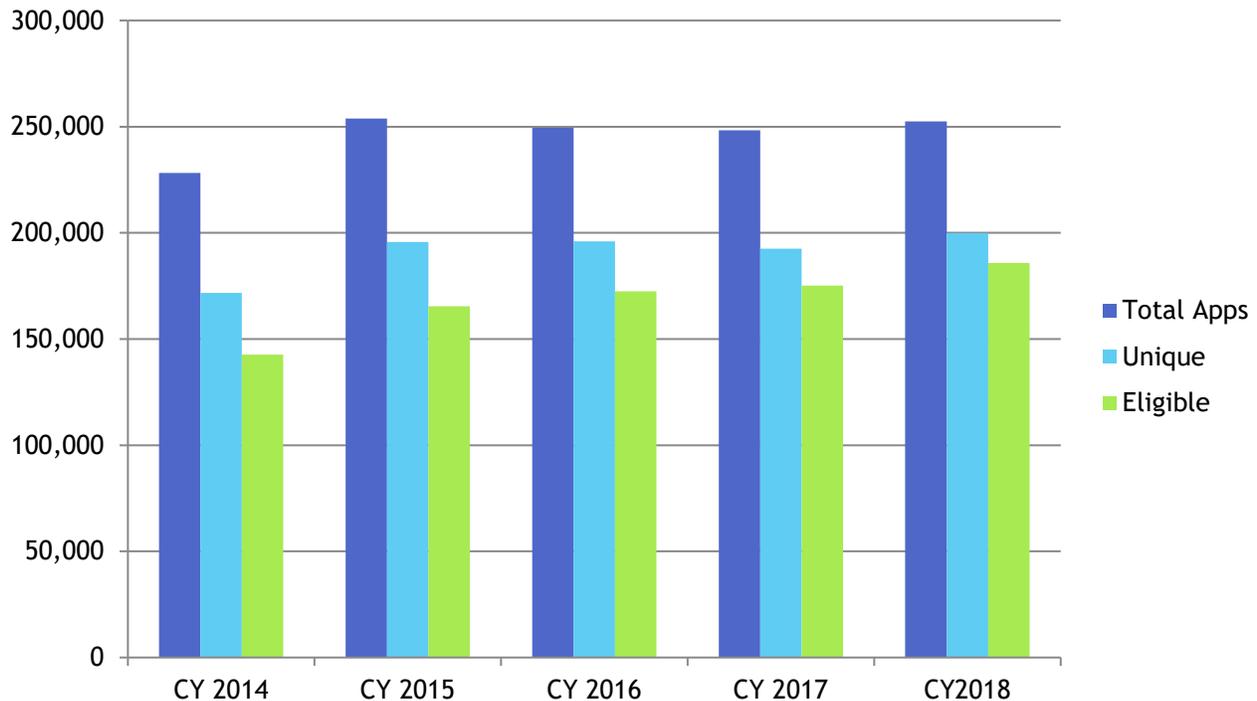
Applications

In 2018, the IMRO received a total of **252,565** IMR applications, a number that is slightly higher than in 2017 (248,251) but, overall, similar to that received over the past several years. Compared to previous years, the number of *eligible* IMR applications continues to increase. (See Figure 1.)

As in previous years, over one in five applications (20.8%) were duplicates of applications previously received. (In 2017, 22.4% of all applications filed were duplicates.) After subtracting duplicate applications, the number of “unique” IMR applications received was **199,956**, a monthly average of 16,663—consistent with the number in 2017 (16,044) and 2016 (16,335).

After an application is determined not to be a duplicate, it is screened for eligibility. In 2018, **185,783** eligible applications were processed by the IMRO, a monthly average of 15,482—continuing an increase in 2017 (14,593), 2016 (14,371), 2015 (13,785), and 2014 (11,888).

Figure 1: IMR Applications Received by Year, 2014–2018



N = 252,565 IMR applications received in 2018, of which 199,956 were unique applications, and 185,783 were eligible applications.

Source: DWC.

Ineligible IMR Applications

Over the past several years of the IMR program, applications determined to be ineligible have decreased in both the percentage of overall “unique” applications filed and volume.

Figure 2a: Ineligible Applications as Percentage of Unique Filings, 2014–2018

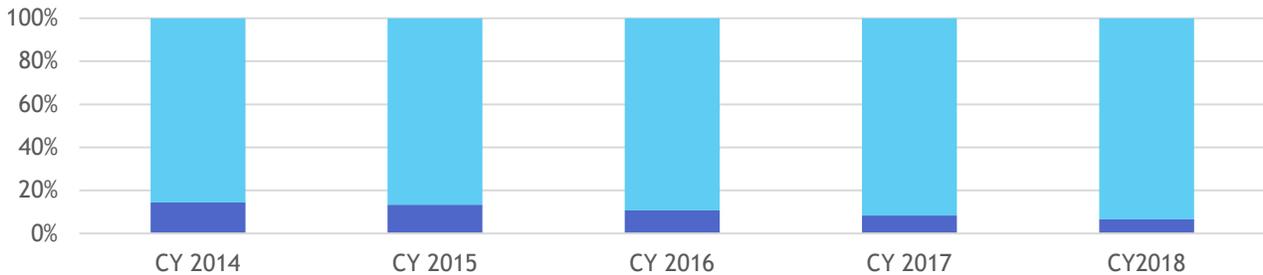
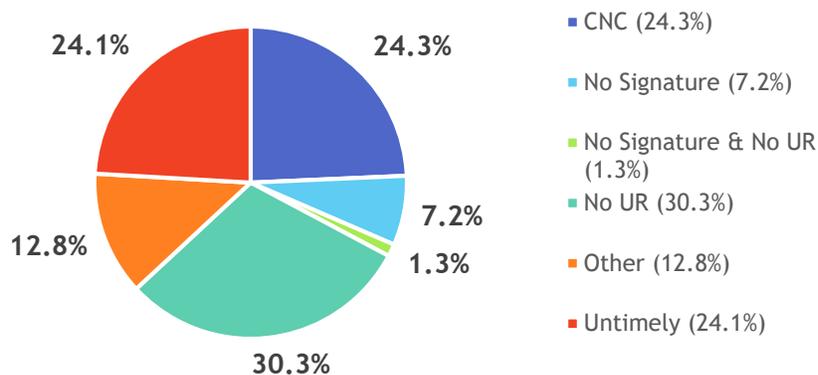


Figure 2b: Ineligible Applications by Volume, 2014-2018



An IMR application is ineligible if (1) it lacks the signature of the injured worker/representative; (2) it is not submitted within 30 days of service of the written UR decision; (3) the UR report is not attached to the application, or (4) the UR does not reflect a determination of medical necessity (Conditional Non-Certification).

Figure 2c: Reasons for IMR Ineligibility (All), 2018



N = 199,956 unique IMR applications received in 2018, of which 14,173 were ineligible.

Source: DWC.

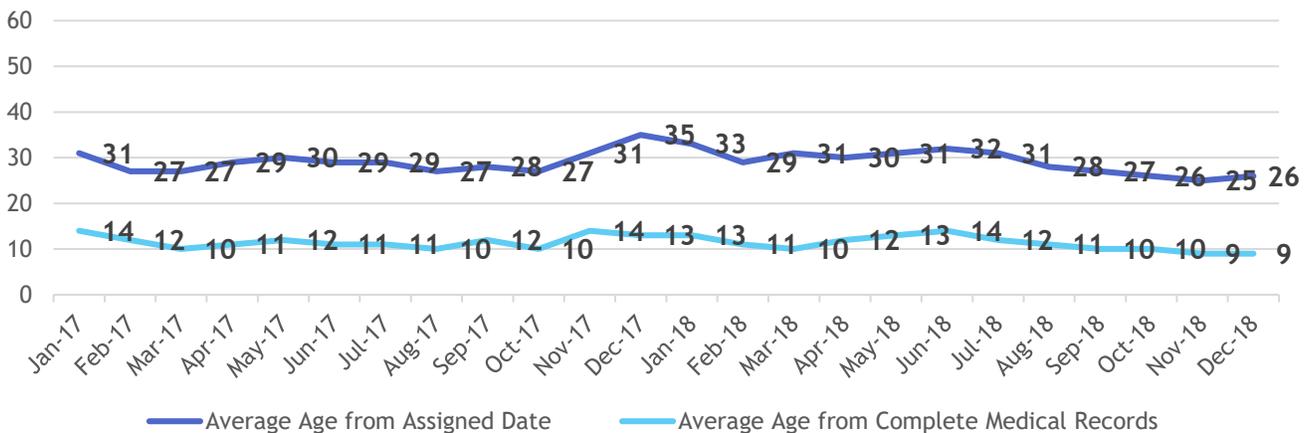
See Appendix C for monthly totals by category.

The IMR Timeline

Timeliness of IMR Decisions

Standard IMR decisions must be issued within 30 days of receipt of the medical records and decisions for expedited applications within 72 hours. Of the 184,672 standard IMR decisions issued in 2018, nearly all (98.1%) were issued within this statutory time requirement. The monthly average length of time taken to issue a decision after the receipt of complete medical records was fourteen days at the beginning of 2018 and nine days by end of 2018.

Figure 3: Average Number of Days Taken to Complete Standard IMRs, 2017 & 2018



N = 356,817 IMR cases (standard determinations), January 2017–December 2018.

Source: DWC.

- The “**Average Age from Assigned Date**” means the average number of calendar days required to process an IMR from the mailing date of the Notice of Assignment and Request for Information (NOARFI) was mailed to the date the Final Determination Letter (FDL).
- The “**Average Age from Complete Medical Records**” means the average number of calendar days required to process an IMR from the date Maximus received all necessary records to the mailing date of the FDL.

Sixty-one (61) *expedited* cases were decided in 2018. The average length of time from receipt of application to issuance of decision was two days.

Expedited Review: UR or IMR conducted when the injured worker’s condition is such that the injured worker faces an imminent and serious threat to his or her health, including, but not limited to, the potential loss of life, limb, or other major bodily function, or the normal timeframe for the decision-making process would be detrimental to the injured worker’s life or health or could jeopardize the injured worker’s permanent ability to regain maximum function. 8 CCR § 9792.6.1(j)

Final Determinations Issued: Standard Case Decisions

The IMRO issued 184,672 *standard* determinations in 2018, which is a 7.3% increase in volume of decisions over the previous year (172,145 in 2017). The IMRO issued 15,389 standard determinations each month on average in 2018. Of these case decisions, 39.4% (72,733) contained only pharmacy-related treatment requests and thus were eligible for the lower application fee, \$345. (The standard application fee is currently \$390.)

Figure 4a: Final Determination Letters (Standard Case Decisions) by Year, 2014–2018

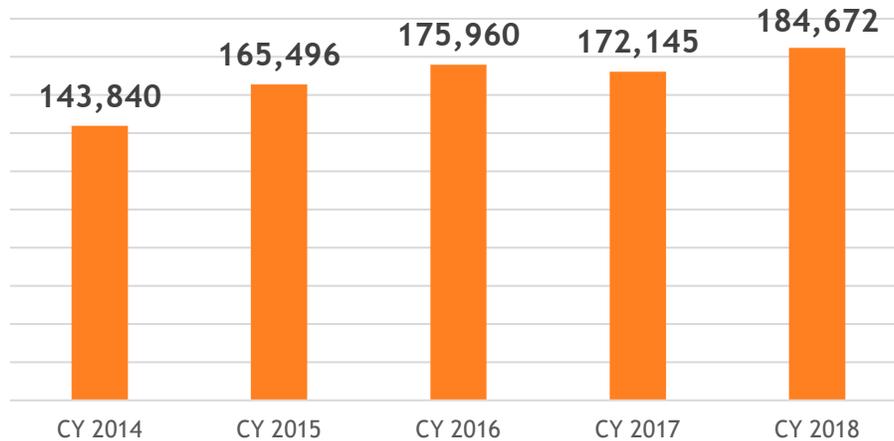
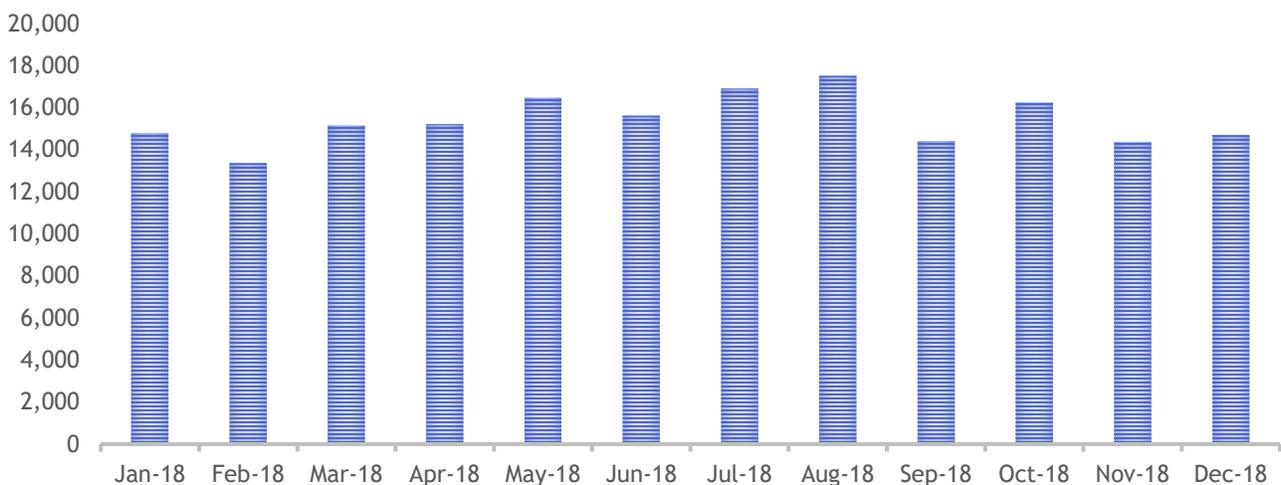


Figure 4b: Final Determination Letters (All) by Month, 2018



N = 184,733 IMR case decisions issued January–December 2018.

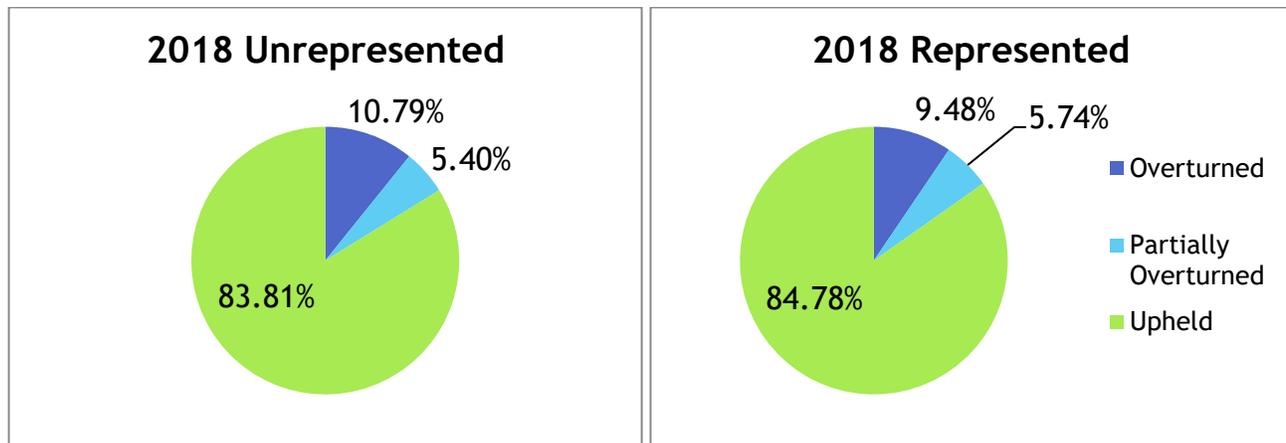
Source: DWC.

Who Files for IMR?

Worker Representation

In 2018, 175,740 (95.1%) of the 184,733 IMR decisions were for applications that listed representation for the injured worker—the same percentage as the previous year (95.1%). The ratio of case outcomes for represented and unrepresented applicants was similar.

Figure 5: Case Outcomes by Worker Representation Status



N = 184,733 IMR case decisions issued January–December 2018. Applications listing representation for injured workers comprised 95.1% (175,740) of the decisions. There were 8,993 unrepresented cases with decisions. Source: DWC.

- **Overturned:** All the disputed items/services are medically necessary and appropriate.
- **Partially Overturned:** Some (not all) of the disputed items/services are medically necessary and appropriate.
- **Upheld:** None of the disputed items/services are medically necessary and appropriate.

Year of Injury

Case outcomes are also similar in terms of the age of the injury for which the IMR is filed. Cases in which the injury is recent, from a few years ago, and from several years ago were grouped into equivalent sample sizes, and the case outcomes were very similar.

Table 1: Case Outcomes by Age of Injury

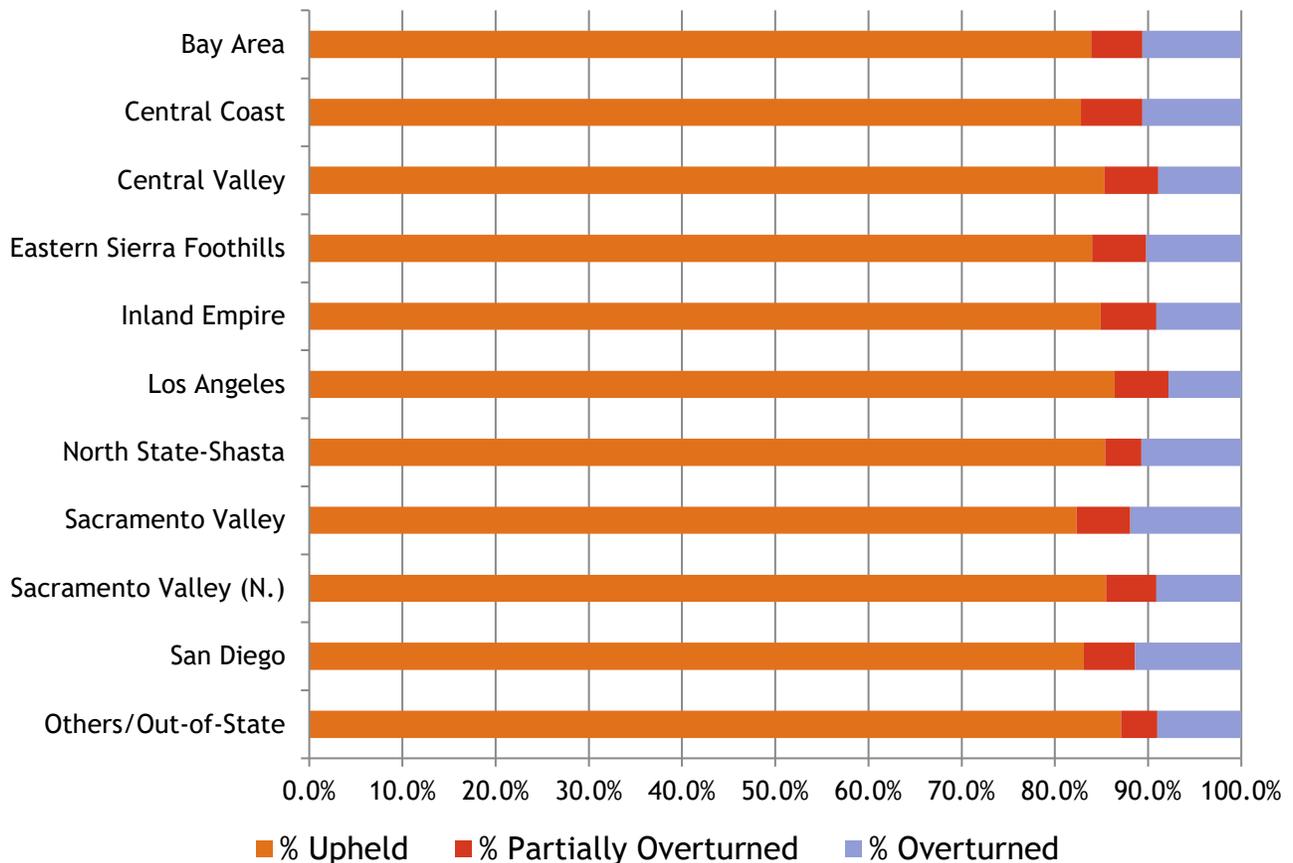
Date of Injury (Calendar Year)	Total	Overturned	Partially Overturned	Upheld	% Overturned	% Partially Overturned	% Upheld
CY 2018	8,421	890	518	7,013	10.6%	6.2%	83.3%
CY 2012	9,045	848	556	7,641	9.4%	6.1%	84.5%
CY 2002-2003	7,398	712	440	6,246	9.6%	5.9%	84.4%

N = Stratified sample of 24,864 IMR case decisions issued January–December 2018. Source: DWC.

Geographic Region

The number of IMR case decisions issued in 2018 continues to be proportionate to the number of claims filed in the ten California geographic regions. As in the past several years, case decision outcomes were consistent across all geographic regions.

Figure 6: Case Outcomes by Geographic Region of Injured Workers, 2018



N = 184,733 IMR case decisions issued January–December 2018.

Source: DWC.

Other Demographic Information

A sample of 2,500 IMR decisions analyzed concluded that applicants' age and sex are representative for the injured worker population. Of the 2,500 randomly selected cases, the division between men and women was about even. The average age of injured workers in the sample is 53. (In 2017, the average injured worker age in a small sample of decisions was 52.)

Table 2: Case Outcomes by Age and Sex of Injured Worker

Age		Sex	
Youngest	17	Female	1,214
Average	53	Male	1,260
Oldest	89	Not Listed	26

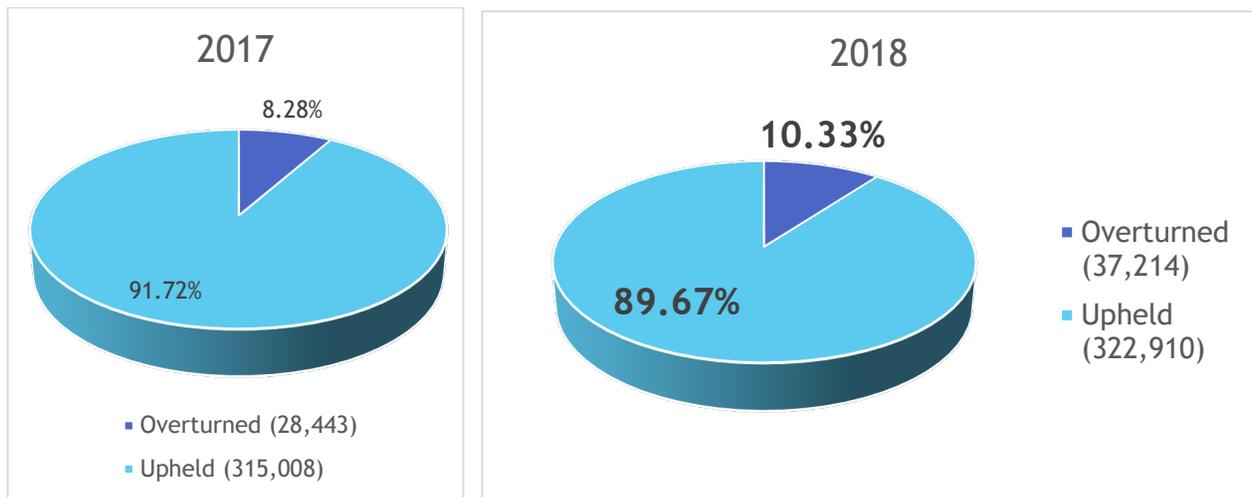
N = Random sample of 2,500 IMR case decisions issued January–December 2018.
Source: DWC.

Medical Treatment in Dispute

Disputed Treatment Request

“Treatment request” refers to the medical treatment that was denied or modified in UR and challenged through the IMR process. IMR cases have one or more disputed treatments. In 2018, 360,124 treatment decisions were made in the 184,733 decided cases. Overall, 10.33% of these treatment request decisions were overturned, meaning the IMRO decided that the disputed service is medically necessary and appropriate. Conversely, a treatment request for a disputed service that is ultimately found not to be medically necessary and appropriate in IMR is “upheld.”) The 10.33% overturn rate is an increase over the previous years, with 8.28% of disputed treatments overturned in 2017, and 8.40% overturned in 2016.

Figure 7: All Treatment Request Outcomes, 2017 and 2018

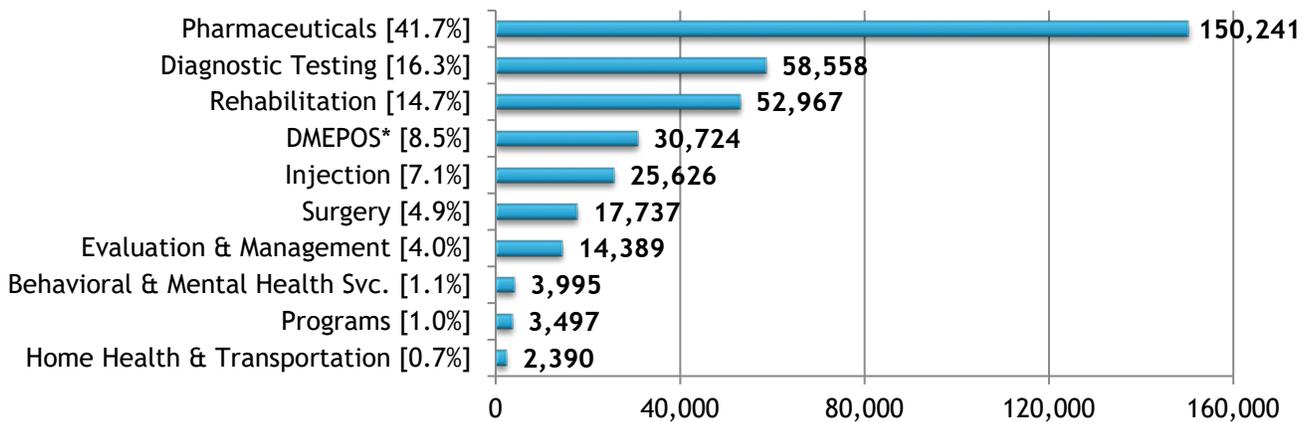


N = 360,124 treatment requests from 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

Decisions by Treatment Category

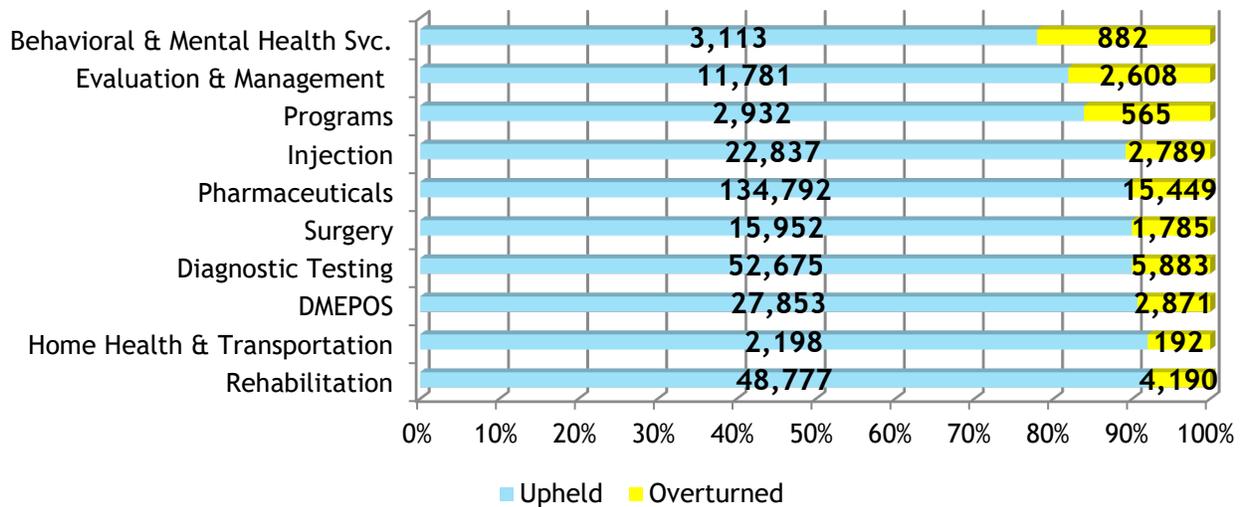
Pharmaceuticals were the most common treatment category disputed in 2018 (41.7%). In 2017, they comprised 42.6% of requests. Diagnostic testing (MRIs, x-rays, etc.) was the second-most requested category of treatment review (16.3%). Requests for rehabilitation, which includes physical therapy, occupational therapy, and chiropractic, is the third-largest category (14.7%).

Figure 8a: Service Categories of Disputed Treatment Requests, 2018



* DMEPOS means durable medical equipment, prosthetics, orthotics and supplies.

Figure 8b: IMR Decisions by Treatment Category, 2018



N = 360,124 treatment requests from 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

Pharmaceuticals

- Nearly one of every three pharmaceutical requests (32.5%) in 2018 were for opioids, an increase over the previous year. Requests for muscle relaxants (13.7%) and topical analgesics (12.2%) were again the second- and third-most requested pharmaceuticals.
- The rate at which UR denials for opioids are overturned (9.8%) is close to that for all pharmaceuticals (10.3%) and all IMR treatment requests (10.3%).
- UR denials are overturned less frequently for muscle relaxants (4.1%) and topical analgesics (5.1%) than other pharmaceuticals. However, the overturn rate for these two drug classes is slightly higher than in 2017 (around 3%).

Figure 9a: Most Requested Pharmaceuticals, 2017 and 2018

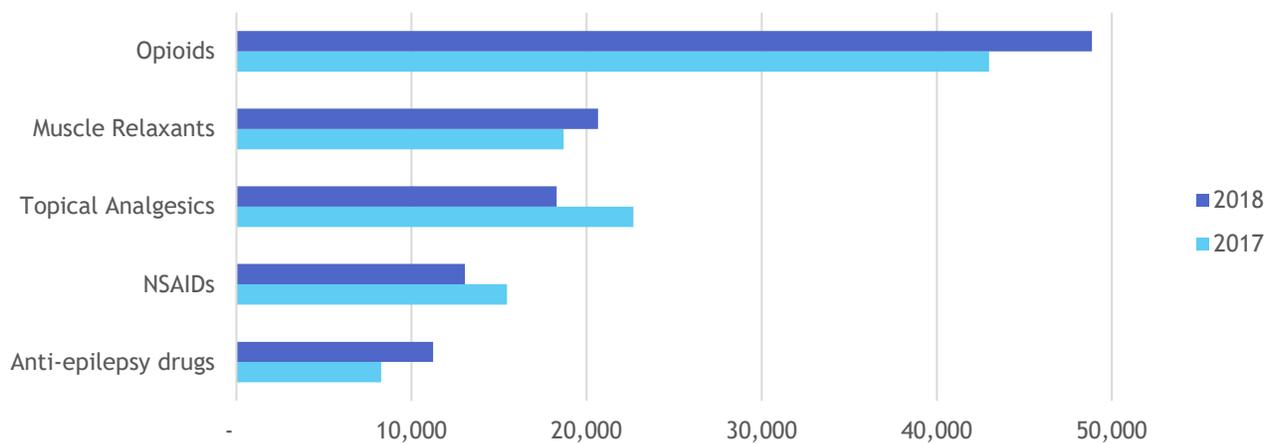
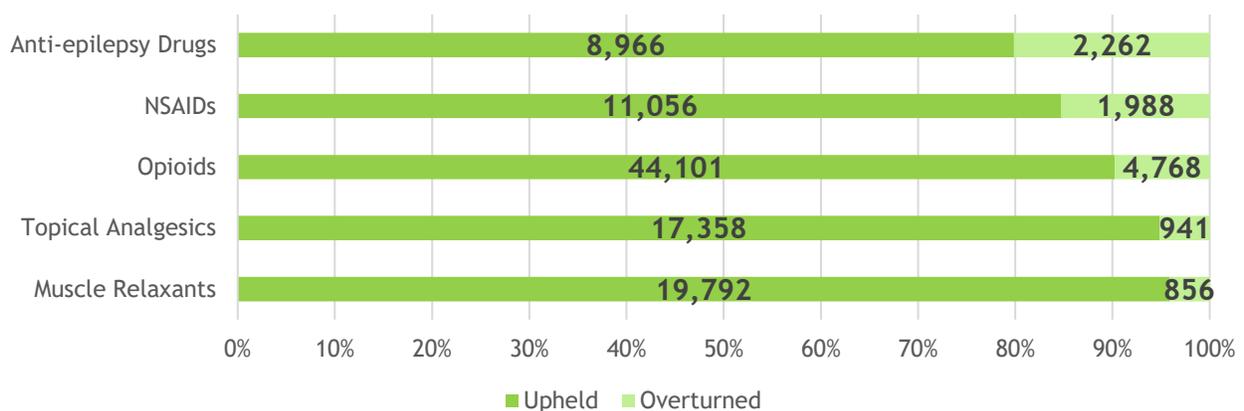


Figure 9b: IMR Decisions of Most Requested Pharmaceuticals, 2018



N = 150,241 treatment requests for pharmaceuticals January–December 2018.

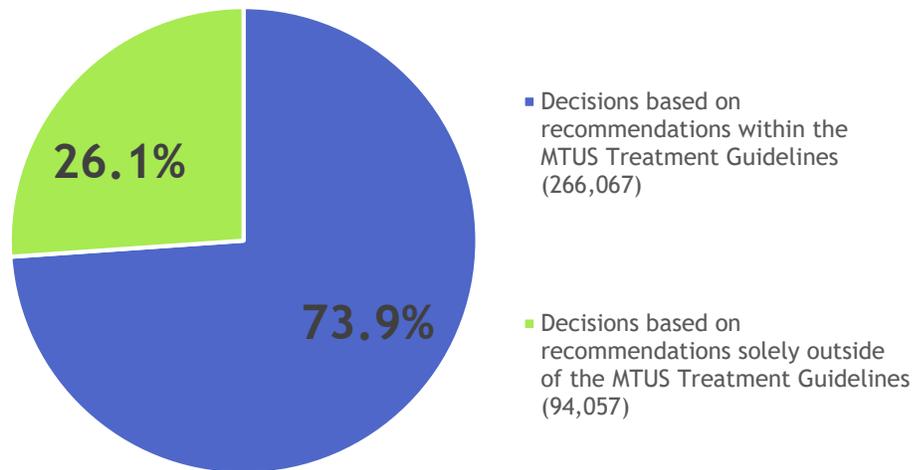
Source: DWC

Note: See Appendix J for treatment request decisions for all drug classes.

IMR Decisions and Application of MTUS Treatment Guidelines

The MTUS includes medical treatment guidelines, a Medical Evidence Search Sequence, and a Methodology for Evaluating Medical Evidence to provide an evidence-based analytical framework for the treatment of work-related injuries. The MTUS assists medical providers in understanding which evidence-based treatments have been effective in providing improved medical outcomes. In making a determination of medical necessity for a requested treatment, IMR reviewers follow the guidance in the MTUS, which is updated regularly to remain current with the latest treatment recommendations.

Figure 10: Application of MTUS Treatment Guidelines

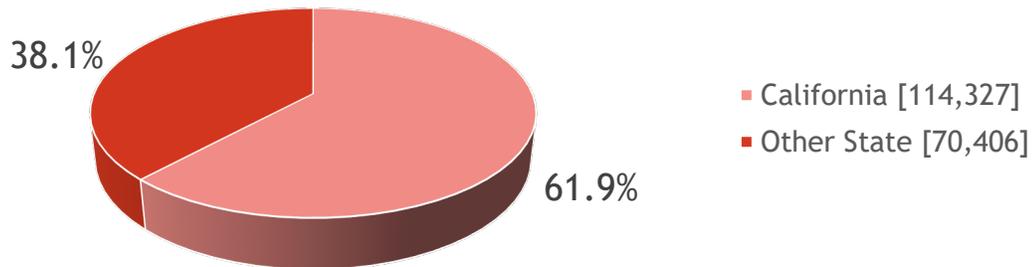


N = 360,124 treatment requests from 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

Physician Reviewers

Expert reviewers licensed in California evaluated more than six of every ten cases in 2018.

Figure 11: IMR Expert Reviewers by the State of License, 2018



N = 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

Although expert reviewers may have more than one board certification, cases are assigned based on the *relevant* specialty of the reviewer, determined by the issues in dispute during preliminary review. The expert reviewer does not need to have the same board certification as the requesting physician but is knowledgeable and qualified to review the requested treatment. Reviewers with ten common specialties were assigned the majority of cases.

Table 3: IMR Expert Reviewers by Board Certification/Relevant Specialty, 2018

Board Certification	Total	% of Case Decisions
Occupational Medicine	40,733	22%
Physical Medicine & Rehabilitation	33,384	18%
Family Practice	24,920	13%
Pain Management	18,156	10%
Orthopedic Surgery	14,820	8%
Emergency Medicine	11,359	6%
Internal Medicine	10,354	6%
Undersea & Hyperbaric Medicine	5,140	3%
Rheumatology	4,336	2%
Surgical Critical Care	2,830	2%
Total	166,032	90%

N = 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

See Appendix L for complete list of Board Certifications and Relevant Specialties.

Conclusion and Future Directions

Activity for IMR remains steady as the program enters its seventh year. In 2018, the number of applications received by the IMRO (not counting duplicates) and the number of case decisions issued increased slightly over those in the previous calendar year. This reversed a trend in 2017, when the number of case decisions issued decreased for the first time in a year-to-year comparison. IMR remains an expedient, efficient means of resolution for medical necessity disputes in California's workers' compensation system.

- Most of the applications (not counting duplicates) filed are determined to be eligible for IMR (93%), and the number of ineligible applications filed continues to decrease—with a monthly average of 1,181, less than half that of three years earlier (2,527 in 2015).
- By the end of 2018, reviews were being completed within nine days of the IMRO's receipt of the medical records relevant to the cases, well before the statutory maximum of 30 days.
- In the first full year of the significant updating of the MTUS and the addition of the drug formulary, the average rate of overturn for treatment request denials noticeably increased, from 8% in 2017 to 10% in 2018. This increase occurred across the service categories.

The DWC website continues to provide all stakeholders and the public with substantial resources for the IMR program. Along with the previous IMR Annual Reports, presentations, and monthly program updates, the IMR Search Tool offers opportunities for training and education, with access to all IMR decisions issued since SB 863 went into effect in 2013.

Since February 2019, upon the finalization of an agreement with the Reed Group, the DWC has been able to provide healthcare professionals involved the California Workers' Compensation System free access to [evidence-based recommendations](#) incorporated into the MTUS – the same guidelines used by UR and IMR physicians.

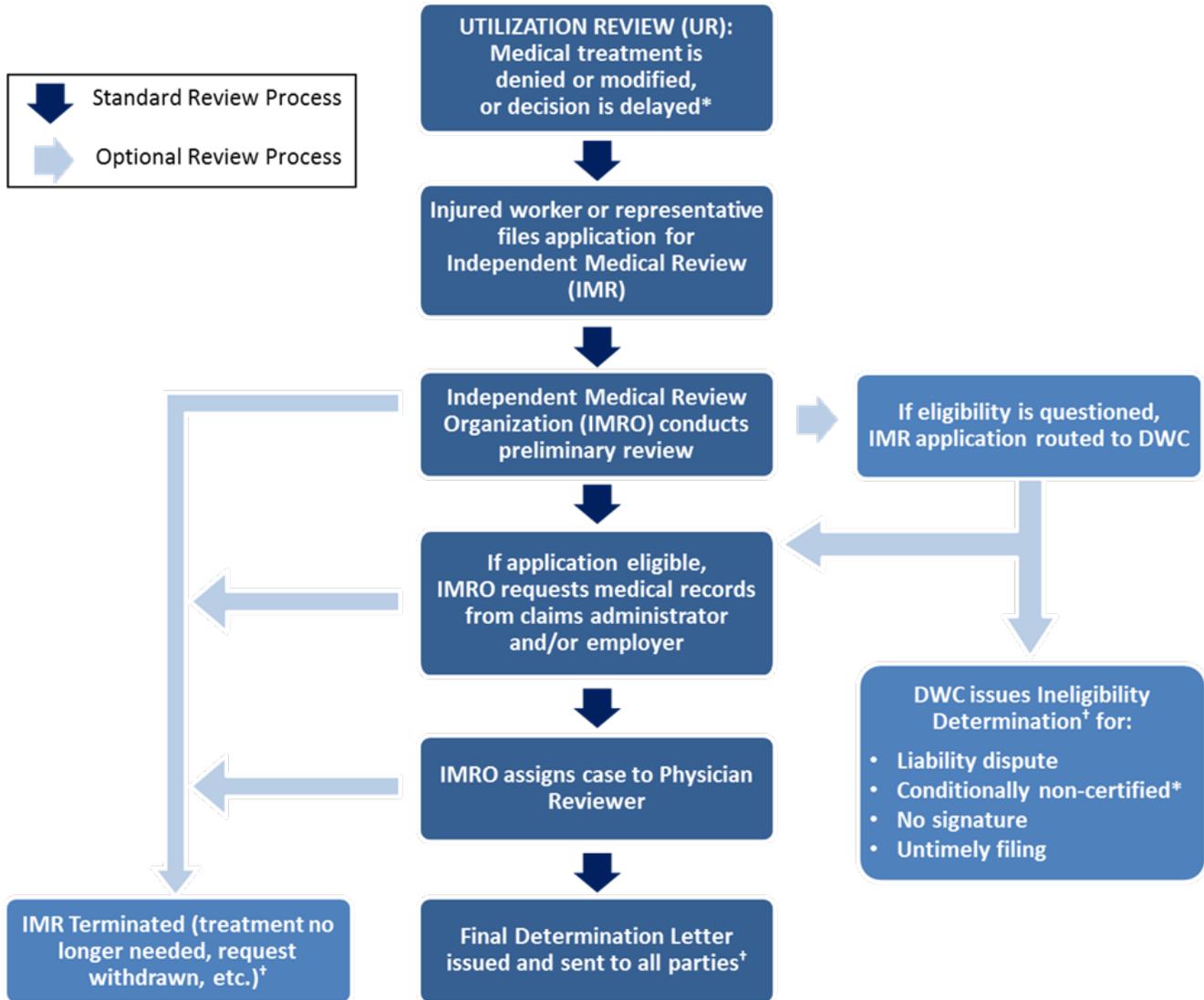
Recent updates in the MTUS address workplace mental health. The first guideline in the series will cover posttraumatic stress disorder. In 2019, the DWC will update its online MTUS Physician Education Module to include the drug formulary and other recent changes.

The IMRO continues to develop the functionality of its portal. Plans for this year include expanding access for injured workers and attorneys, with continued expansion of dashboard reports, online IMR application requests, and invoicing for claims administrators.

Finally, the DWC continues to advance the use of technology in workers' compensation with the testing and adopting of rules for the electronic submission of UR data and the Doctor's First Report, which will have a positive impact on the administration of the IMR program.

Appendices

Appendix A: The Independent Medical Review Process



* Treatment decisions may be delayed if physician or claims administrator has not provided the information requested. This is referred to as “conditionally non-certified.”

† Closed cases

Appendix B: IMR Applications Received by Month

Month	Total Apps	Unique	Eligible
January	19,896	15,984	14,606
February	21,327	16,953	15,664
March	23,310	18,402	17,065
April	22,828	17,431	16,109
May	22,613	17,759	16,464
June	21,306	16,771	15,601
July	20,695	16,365	15,311
August	22,285	17,833	16,624
September	18,678	14,868	13,842
October	21,778	17,446	16,368
November	19,881	15,863	14,802
December	17,968	14,281	13,327
Total	252,565	199,956	185,783

N = 252,565 IMR applications received in 2018, of which 199,956 were unique applications, and 185,783 were eligible applications

Source: DWC.

Appendix C: Ineligible Applications by Month

Month	No Signature	No UR	No Sig and UR	Untimely	CNC*	Other	Totals
Jan	69	356	14	347	435	157	1,378
Feb	72	445	18	273	307	174	1,289
Mar	105	435	18	312	308	159	1,337
Apr	84	414	19	289	323	193	1,322
May	105	396	12	302	288	192	1,295
Jun	141	339	14	279	231	166	1,170
Jul	78	327	11	282	257	99	1,054
Aug	64	329	15	271	312	178	1,169
Sep	58	301	14	298	226	129	1,026
Oct	97	317	16	245	265	138	1,078
Nov	84	326	13	252	271	115	1,061
Dec	61	298	17	253	211	114	954
Total	1,018	4,283	181	3,403	3,434	1,814	14,133**
% of Total	7.2%	30.3%	1.3%	24.1%	24.3%	12.8%	100.0%

N = 199,956 unique IMR applications received in 2018, of which 14,173 were ineligible.

Source: DWC.

*CNC: Conditionally noncertified decision: A UR decision that has been denied because the treating physician has not provided the medical information requested by the claims administrator that is required to make a medical necessity determination on the treatment recommendation.

**Forty (40) ineligible applications not included. Disposition information not available at time of reporting.

Appendix D: Final Determination Letters (Case Decisions) Issued by Month

Month	Total	Month	Total
January	14,795	July	16,902
February	13,360	August	17,507
March	15,146	September	14,415
April	15,211	October	16,245
May	16,462	November	14,369
June	15,616	December	14,705

N = 184,733 IMR case decisions issued January–December 2018.

Source: DWC.

Appendix E: Geographic Regions Defined by Constituent Counties

Region	County
Bay Area	Alameda
	Contra Costa
	Marin
	Napa
	San Francisco
	San Mateo
	Santa Clara
	Solano
	Sonoma
Central Coast	Monterey
	San Benito
	San Luis Obispo
	Santa Barbara
	Santa Cruz
	Ventura
Central Valley	Fresno
	Kern
	Kings
	Madera
	Merced
	San Joaquin
	Stanislaus
	Tulare
Eastern Sierra Foothills	Alpine
	Amador
	Calaveras
	El Dorado
	Inyo
	Mariposa
	Mono
	Nevada
	Placer
Tuolumne	

Region	County
Inland Empire	Imperial
	Orange
	Riverside
	San Bernardino
Los Angeles	Los Angeles
North State / Shasta	Del Norte
	Humboldt
	Lake
	Lassen
	Mendocino
	Modoc
	Plumas
	Shasta
	Sierra
Siskiyou	
Trinity	
Sacramento Valley - North	Butte
	Colusa
	Glenn
	Sutter
	Tehama
Sacramento Valley - South	Yuba
	Sacramento
San Diego	Yolo
	San Diego

Appendix F: Geographic Distribution of IMR Case Decisions

Region	Total	Upheld	Partially Overturned	Overturned
Bay Area	39,231	32,922	4,155	2,154
Central Coast	13,581	11,245	1,442	894
Central Valley	22,845	19,488	2,036	1,321
Eastern Sierra Foothills	4,103	3,448	419	236
Inland Empire	32,832	27,868	2,993	1,971
Los Angeles	42,041	36,312	3,294	2,435
North State-Shasta	3,016	2,575	322	119
Sacramento Valley	9,497	7,816	1,132	549
Sacramento Valley (N.)	3,050	2,608	278	164
San Diego	10,368	8,612	1,183	573
Others/Out-of-State	4,164	3,625	375	164
TOTAL	184,728**	156,519	17,629	10,580

**Five (5) cases not included. Location information not available at time of reporting.

Appendix G: IMR Case-Level Results, Represented and Unrepresented

Case Decision	Represented	Unrepresented	Total
Overturn	16,661	970	17,631
Partial Overturn	10,095	486	10,583
Upheld	148,984	7,537	156,521
<i>Total</i>	<i>175,750</i>	<i>8,993</i>	<i>184,733</i>

Appendix H: Case Decisions Issued in 2018 by Date of Injury

Year of Injury	Total IMR Cases 2018	Year of Injury	Total IMR Cases 2018	Year of Injury	Total IMR Cases 2018
CY 2018	8,421	CY 2011	7,563	CY 2004	3,150
CY 2017	29,965	CY 2010	6,687	CY 2003	3,846
CY 2016	26,790	CY 2009	5,345	CY 2002	3,552
CY 2015	19,085	CY 2008	4,871	CY 2001	3,363
CY 2014	13,416	CY 2007	4,243	CY 2000	3,475
CY 2013	10,804	CY 2006	3,678	CY 1999	2,480
CY 2012	9,045	CY 2005	3,234	Before CY 1999	11,720

N = 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

Appendix I: IMR Decisions by Treatment Category (Clinical Services)

Diagnostic Testing	<u># Requests</u>	<u>Overtured</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
EMG/NCV/NCS	7,275	826	11.4%	6,449	88.6%
- Electromyography (EMG)	4,992	600	12.0%	4,392	88.0%
- Nerve Conduction Velocity (NCV)	1,794	192	10.7%	1,602	89.3%
- Other nerve tests	489	34	7.0%	455	93.0%
Imaging, Radiology	22,814	2,553	11.2%	20,261	88.8%
- Angiogram	23	5	21.7%	18	78.3%
- Arteriogram	5	1	20.0%	4	80.0%
- Arthrogram	326	75	23.0%	251	77.0%
- Bone Scan	176	34	19.3%	142	80.7%
- CT Scan	1,305	161	12.3%	1,144	87.7%
- Discogram	47	0	-	47	100%
- Echocardiogram	368	20	5.4%	348	94.6%
- Fluoroscopy	565	38	6.7%	527	93.3%
- MRI (magnetic resonance imaging)	12,664	1,542	12.2%	11,122	87.8%
- Myelogram	74	13	17.6%	61	82.4%
- Ultrasound	2,167	160	7.4%	2,007	92.6%
- X-Rays	4,782	470	9.8%	4,312	90.2%
- Other imaging	312	34	10.9%	278	89.1%
Lab & Pathology	22,535	2,022	9.0%	20,513	91.0%
- Biopsy	18	12	66.7%	6	33.3%
- Blood Chemistry	49	5	10.2%	44	89.8%
- Complete Blood Count (CBC)	3,647	218	6.0%	3,429	94.0%
- Lipid Panel	21	2	9.5%	19	90.5%
- Metabolic Panel	2,487	145	5.8%	2,342	94.2%
- Urinalysis	2,752	184	6.7%	2,568	93.3%
- Urine Drug Screen	4,922	997	20.3%	3,925	79.7%
- Other lab tests	8,639	459	5.3%	8,180	94.7%
Other Diagnostic Tests	5,934	482	8.1%	5,452	91.9%
- Colonoscopy	16	4	25.0%	12	75.0%
- Electrocardiogram (EKG)	3,817	210	5.5%	3,607	94.5%
- Endoscopy	36	11	30.6%	25	69.4%
- Other tests	2,065	257	12.4%	1,808	87.6%

DMEPOS	<u># Requests</u>	<u>Overturned</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Durable Medical Equipment (DME)	12,135	1,010	8.3%	11,125	91.7%
- Bed	147	4	2.7%	143	97.3%
- Continual Passive Motion (CPM) Device	588	35	6.0%	553	94.0%
- Exercise Kit	288	36	12.5%	252	87.5%
- Hot/Cold Compression Unit	2,960	138	4.7%	2,822	95.3%
- Infrared Lamp	10	1	10.0%	9	90.0%
- Lift Chair	36	2	5.6%	34	94.4%
- Manual Wheelchair	18	6	33.3%	12	66.7%
- Power Mobility Device	111	10	9.0%	101	91.0%
- Traction Unit	234	13	5.6%	221	94.4%
- Treadmill	5	0	-	5	100%
- Other DME	7,738	765	9.9%	6,973	90.1%
Electrical Stimulation	7,054	717	10.2%	6,337	89.8%
- Combo, e-stim other	55	4	7.3%	51	92.7%
- E-stim Supplies	928	99	10.7%	829	89.3%
- H-Wave Unit	1,461	231	15.8%	1,230	84.2%
- Inferential Unit	623	31	5.0%	592	95.0%
- TENS Unit	3,150	295	9.4%	2,855	90.6%
- Other electrical stimulation	837	57	6.8%	780	93.2%
Prosthetics / Orthotics	5,107	522	10.2%	4,585	89.8%
- Brace	3,520	360	10.2%	3,160	89.8%
- Collar	363	23	6.3%	340	93.7%
- Lumbar Support	462	18	3.9%	444	96.1%
- Orthotics	649	99	15.3%	550	84.7%
- Other prosthetics/orthotics	113	22	19.5%	91	80.5%
Supplies	6,428	622	9.7%	5,806	90.3%
- Batteries	178	15	8.4%	163	91.6%
- Bone Growth Stimulator	552	45	8.2%	507	91.8%
- Cane	157	34	21.7%	123	78.3%
- Commodes	344	15	4.4%	329	95.6%
- Crutches	541	39	7.2%	502	92.8%
- Electrodes	645	68	10.5%	577	89.5%
- Pain Pump	253	18	7.1%	235	92.9%
- Pillow	103	20	19.4%	83	80.6%
- Sling	974	89	9.1%	885	90.9%
- ThermaCare Heat Patch	67	14	20.9%	53	79.1%
- Walker	717	65	9.1%	652	90.9%
- Wheel Chair (includes service, repair, product replacement)	145	30	20.7%	115	79.3%
- Other supplies	1,752	170	9.7%	1,582	90.3%

Evaluation & Management	<u># Requests</u>	<u>Overtured</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Dental Service	841	134	15.9%	707	84.1%
Evaluation and Management	2,679	511	19.1%	2,168	80.9%
- Office Visit	2,477	462	18.7%	2,015	81.3%
- Transfer of Care	36	8	22.2%	28	77.8%
- Treatment Progress Report	5	0	-	5	100%
- Workplace Ergonomic Evaluation	30	13	43.3%	17	56.7%
- Other evaluation / management service	131	28	21.4%	103	78.6%
Medical Specialties	10,869	1,963	18.1%	8,906	81.9%
- Anesthesiology	721	57	7.9%	664	92.1%
- Consult (unspecified)	1,491	354	23.7%	1,137	76.3%
- Follow-ups	605	150	24.8%	455	75.2%
- Internal Medicine	125	16	12.8%	109	87.2%
- Medical Clearance	1,704	131	7.7%	1,573	92.3%
- Medical Toxicology	101	21	20.8%	80	79.2%
- Medication Management	365	75	20.5%	290	79.5%
- Neurological Surgery	51	11	21.6%	40	78.4%
- Neurology	250	81	32.4%	169	67.6%
- Ophthalmology	72	25	34.7%	47	65.3%
- Orthopedics	866	206	23.8%	660	76.2%
- Orthopedic Surgery	33	9	27.3%	24	72.7%
- Pain Management	1,598	395	24.7%	1,203	75.3%
- Physical Medicine & Rehabilitation	953	110	11.5%	843	88.5%
- Podiatry	81	17	21.0%	64	79.0%
- Psychiatry	273	42	15.4%	231	84.6%
- Sleep Evaluation	228	16	7.0%	212	93.0%
- Surgery (referral)	392	85	21.7%	307	78.3%
- Urology (Consult)	53	20	37.7%	33	62.3%
- Other medical specialties	907	142	15.7%	765	84.3%

Home Health & Transportation	<u># Requests</u>	<u>Overtured</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Home Health services	1,817	150	8.3%	1,667	91.7%
Transportation services	573	42	7.3%	531	92.7%

<i>Injection</i>	<u># Requests</u>	<u>Overtuned</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Peripheral	8,771	1,055	12.0%	7,716	88.0%
- Botox	200	41	20.5%	159	79.5%
- Corticosteroid	94	21	22.3%	73	77.7%
- Injection – Ankle	126	14	11.1%	112	88.9%
- Injection – Elbow	261	49	18.8%	212	81.2%
- Injection – Foot	77	12	15.6%	65	84.4%
- Injection – Hand	78	14	17.9%	64	82.1%
- Injection – Hip	249	54	21.7%	195	78.3%
- Injection – Knee	1,342	152	11.3%	1,190	88.7%
- Injection – Shoulder	883	131	14.8%	752	85.2%
- Injection – Wrist	176	39	22.2%	137	77.8%
- Nerve Block	1,215	149	12.3%	1,066	87.7%
- PRP	1,211	54	4.5%	1,157	95.5%
- Steroid	206	26	12.6%	180	87.4%
- Synvisc	483	25	5.2%	458	94.8%
- Trigger Point	1,982	260	13.1%	1,722	86.9%
- Viscosupplementation	183	13	7.1%	170	92.9%
- Other peripheral	5	1	20.0%	4	80.0%
Spine	15,110	1,512	10.0%	13,598	90.0%
- Caudal Epidural	316	40	12.7%	276	87.3%
- Cervical injection	822	45	5.5%	777	94.5%
- Epidural	4,341	412	9.5%	3,929	90.5%
- Facet	1,692	115	6.8%	1,577	93.2%
- LESI (Lumbar Epidural Steroid Inj.)	2,504	300	12.0%	2,204	88.0%
- Lumbar injection (non-steroid)	243	21	8.6%	222	91.4%
- Medial Branch Block	2,166	190	8.8%	1,976	91.2%
- Sacroiliac	1,080	112	10.4%	968	89.6%
- Transforaminal injection	1,918	273	14.2%	1,645	85.8%
- Other spine	28	4	14.3%	24	85.7%
Other Injections	1,745	222	12.7%	1,523	87.3%

<i>Programs</i>	<u># Requests</u>	<u>Overtuned</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
- Chronic Pain Program	106	26	24.5%	80	75.5%
- Detox	47	10	21.3%	37	78.7%
- Functional Restoration	1,847	434	23.5%	1,413	76.5%
- Gym Membership	637	11	1.7%	626	98.3%
- Interpreter	7	2	28.6%	5	71.4%
- Weight Loss Program	310	30	9.7%	280	90.3%
- Work Conditioning	277	25	9.0%	252	91.0%
- Work Hardening	203	18	8.9%	185	91.1%
- Other programs	63	9	14.3%	54	85.7%

Behavioral & Mental Health Services	<u># Requests</u>	<u>Overtured</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Evaluation and Management	2,039	433	21.2%	1,606	78.8%
- Beck Anxiety and/or Depression Inventories	105	11	10.5%	94	89.5%
- Psychiatrist	291	80	27.5%	211	72.5%
- Psychologist	1,630	342	21.0%	1,288	79.0%
- Other evaluation	13	0	-	13	100%
Therapies	1,956	449	23.0%	1,507	77.0%
- Behavioral Therapy	150	32	21.3%	118	78.7%
- Biofeedback	199	39	19.6%	160	80.4%
- Cognitive Therapy	1,045	272	26.0%	773	74.0%
- Group Therapy	32	6	18.8%	26	81.3%
- Hypnotherapy	87	15	17.2%	72	82.8%
- Other therapies	443	85	19.2%	358	80.8%

Rehabilitation	<u># Requests</u>	<u>Overtured</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Acupuncture	9,121	651	7.1%	8,470	92.9%
Chiropractic	5,897	440	7.5%	5,457	92.5%
- Manual Manipulation	542	26	4.8%	516	95.2%
- Other chiropractic	5,355	414	7.7%	4,941	92.3%
Physical Therapy / Occupational Therapy (PT/OT)	29,436	2,287	7.8%	27,149	92.2%
- Active and passive modalities, PT and/or OT	13,290	992	7.5%	12,298	92.5%
- Occupational Therapy	1,438	148	10.3%	1,290	89.7%
- Physical Therapy	14,708	1,147	7.8%	13,561	92.2%
Other Therapies	8,513	812	9.5%	7,701	90.5%
- Aqua Therapy	2,351	146	6.2%	2,205	93.8%
- Cold Therapy/Cryotherapy	415	23	5.5%	392	94.5%
- Compression Therapy	89	6	6.7%	83	93.3%
- Electric Shockwave Therapy	61	6	9.8%	55	90.2%
- Functional Capacity Test	1,035	178	17.2%	857	82.8%
- Hand Therapy	260	41	15.8%	219	84.2%
- Ice Therapy	20	5	25.0%	15	75.0%
- Massage Therapy	1,745	201	11.5%	1,544	88.5%
- Shockwave Therapy	127	10	7.9%	117	92.1%
- Speech Therapy	68	12	17.6%	56	82.4%
- Other therapies	2,342	184	7.9%	2,158	92.1%

Surgery	<u># Requests</u>	<u>Overturned</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Adjunct Surgical Services	4,429	356	8.0%	4,073	92.0%
- Assistant Surgeon	2,023	177	8.7%	1,846	91.3%
- Inpatient Stay	1,954	153	7.8%	1,801	92.2%
- Other adjunct surgical	452	26	5.8%	426	94.2%
Arthroscopic Surgery	4,267	478	11.2%	3,789	88.8%
- Arthroscopy	1,113	146	13.1%	967	86.9%
- Surgery – Ankle	259	31	12.0%	228	88.0%
- Surgery – Elbow	333	37	11.1%	296	88.9%
- Surgery – Hip	88	8	9.1%	80	90.9%
- Surgery – Knee	1,006	85	8.4%	921	91.6%
- Surgery – Shoulder	1,245	127	10.2%	1,118	89.8%
- Surgery – Wrist	223	44	19.7%	179	80.3%
Non-arthroscopic Surgery	6,277	714	11.4%	5,563	88.6%
- Ablation	36	8	22.2%	28	77.8%
- Arthroplasty, other	211	29	13.7%	182	86.3%
- Carpal Tunnel	706	132	18.7%	574	81.3%
- Discectomy	263	23	8.7%	240	91.3%
- Fusion	1,215	58	4.8%	1,157	95.2%
- Hip Replacement	22	3	13.6%	19	86.4%
- Joint Surgery, other	33	3	9.1%	30	90.9%
- Knee Replacement	187	19	10.2%	168	89.8%
- Knee Revision	24	2	8.3%	22	91.7%
- Laminectomy	257	25	9.7%	232	90.3%
- Radiofrequency Ablation	862	114	13.2%	748	86.8%
- Rhizotomy	206	21	10.2%	185	89.8%
- Shoulder Surgery	192	25	13.0%	167	87.0%
- Spinal Cord Stimulator	771	60	7.8%	711	92.2%
- Spinal Pain Pump	21	1	4.8%	20	95.2%
- Spine Surgery, other	514	46	8.9%	468	91.1%
- Other surgery	757	145	19.2%	612	80.8%
Surgical Consult	2,764	237	8.6%	2,527	91.4%
- Hand Surgeon	59	18	30.5%	41	69.5%
- Neurological Surgeon	113	21	18.6%	92	81.4%
- Orthopedic Surgeon	135	29	21.5%	106	78.5%
- Preoperative (Surgical) Clearance	2,381	161	6.8%	2,220	93.2%
- Vascular Surgeon	12	1	8.3%	11	91.7%
- Other surgeon	64	7	10.9%	57	89.1%

N = 209,883 treatment requests for clinical services issued January–December 2018.
Source: DWC.

Appendix J: IMR Decisions for Treatment Requests by Drug Class

- Brand names are distinguished from their generic counterparts by the ALL CAPS typeface.
- Both generic and brand name pharmaceuticals are listed based on the frequency of the specified pharmaceutical requests from the utilization review reports and IMR applications.
- For large drug classes, such as Opioids, all individual generic and/or brand names with at least 75 requests (e.g., 0.05% of all pharma) are listed below. For more information on a particular generic and/or brand name drug not listed, please visit the [DWC IMR search tool](#).

	<u># Requests</u>	<u>Overturned</u>	<u>% Overturn</u>	<u>Upheld</u>	<u>% Upholds</u>
Alpha-blockers	67	15	22.4%	52	77.6%
Androgens and Anabolic Steroids	107	22	20.6%	85	79.4%
Anesthetics	46	7	15.2%	39	84.8%
Antacids	21	3	14.3%	18	85.7%
Anti-coagulants	143	23	16.1%	120	83.9%
Antidepressants	5,926	1,503	25.4%	4,423	74.6%
- Amitriptyline	465	132	28.4%	333	71.6%
- Bupropion	296	66	22.3%	230	77.7%
- CELEXA	96	21	21.9%	75	78.1%
- CYMBALTA	1,246	252	20.2%	994	79.8%
- Doxepin	138	31	22.5%	107	77.5%
- Duloxetine	639	189	29.6%	450	70.4%
- EFFEXOR (including XR)	139	36	25.9%	103	74.1%
- ELAVIL	210	46	21.9%	164	78.1%
- Escitalopram	77	23	29.9%	54	70.1%
- Fluoxetine	99	26	26.3%	73	73.7%
- LEXAPRO	198	54	27.3%	144	72.7%
- Mirtazapine	138	33	23.9%	105	76.1%
- Nortriptyline	401	107	26.7%	294	73.3%
- PAMELOR	121	32	26.4%	89	73.6%
- PROZAC	198	68	34.3%	130	65.7%
- REMERON	113	22	19.5%	91	80.5%
- Sertraline	155	50	32.3%	105	67.7%
- TRINTELLIX	77	27	35.1%	50	64.9%
- Venlafaxine (includes ER)	199	41	20.6%	158	79.4%
- WELLBUTRIN	332	94	28.3%	238	71.7%
- ZOLOFT	168	43	25.6%	125	74.4%
- Other antidepressant	421	110	26.1%	311	73.9%
Antidiabetics	139	26	18.7%	113	81.3%
Antidiarrheals	26	4	15.4%	22	84.6%
Antiemetics	1,346	126	9.4%	1,220	90.6%
- Ondansetron	312	26	8.3%	286	91.7%
- PHENERGAN	97	7	7.2%	90	92.8%
- Promethazine	77	8	10.4%	69	89.6%
- ZOFRAN	749	72	9.6%	677	90.4%
- Other antiemetic	111	13	11.7%	98	88.3%

	# Requests	Overturned	% Overturn	Upheld	% Upholds
Anti-epilepsy drugs (AEDs)	11,228	2,262	20.1%	8,966	79.9%
- Gabapentin (including ER)	6,073	1,245	20.5%	4,828	79.5%
- GRALISE	166	32	19.3%	134	80.7%
- HORIZANT	118	20	16.9%	98	83.1%
- LYRICA	2,103	445	21.2%	1,658	78.8%
- NEURONTIN	1,659	291	17.5%	1,368	82.5%
- Pregabalin	102	24	23.5%	78	76.5%
- TOPAMAX	446	79	17.7%	367	82.3%
- Topiramate	246	56	22.8%	190	77.2%
- Other anti-epilepsy drug	315	70	22.2%	245	77.8%
Antihistamines	104	4	3.8%	100	96.2%
Antihypertensives	710	144	20.3%	566	79.7%
- Clonidine	94	14	14.9%	80	85.1%
- Other antihypertensive	616	130	21.1%	486	78.9%
Anti-infectives	1,870	155	8.3%	1,715	91.7%
- Cephalexin	108	11	10.2%	97	89.8%
- KEFLEX	980	45	4.6%	935	95.4%
- Other anti-infective	782	99	12.7%	683	87.3%
Antimigraines	406	80	19.7%	326	80.3%
- IMITREX	130	22	16.9%	108	83.1%
- Sumatriptan	95	20	21.1%	75	78.9%
- Other antimigraine	181	38	21.0%	143	79.0%
Antipsychotics	101	18	17.8%	83	82.2%
Antispasmodics	47	8	17.0%	39	83.0%
Asthma medications	161	26	16.1%	135	83.9%
Atypical Antipsychotics	544	105	19.3%	439	80.7%
- ABILIFY	126	33	26.2%	93	73.8%
- Quetiapine	88	13	14.8%	75	85.2%
- SEROQUEL	179	29	16.2%	150	83.8%
- Other atypical antipsychotic	151	30	19.9%	121	80.1%
Barbiturates	55	2	3.6%	53	96.4%
Benzodiazepines	4,223	158	3.7%	4,065	96.3%
- Alprazolam	468	18	3.8%	450	96.2%
- ATIVAN	505	14	2.8%	491	97.2%
- Clonazepam	344	18	5.2%	326	94.8%
- Diazepam	353	9	2.5%	344	97.5%
- KLONOPIN	279	16	5.7%	263	94.3%
- Lorazepam	370	13	3.5%	357	96.5%
- RESTORIL	257	11	4.3%	246	95.7%
- Temazepam	276	7	2.5%	269	97.5%
- VALIUM	424	22	5.2%	402	94.8%
- XANAX	770	22	2.9%	748	97.1%
- Other benzodiazepine	177	8	4.5%	169	95.5%

	# Requests	Overturned	% Overturn	Upheld	% Upholds
Beta Blockers	16	6	37.5%	10	62.5%
Bisphosphonates	12	1	8.3%	11	91.7%
Botulinum Toxins	119	24	20.2%	95	79.8%
- BOTOX	92	18	19.6%	74	80.4%
- Other botulinum toxin	27	6	28.6%	21	71.4%
Calcium Channel Blockers	22	2	9.1%	20	90.9%
Cannabinoids	76	2	2.6%	74	97.4%
Central Adrenergic Agonists	25	6	24.0%	19	76.0%
Cholinesterase Inhibitors	14	2	14.3%	12	85.7%
Corticosteroids	546	75	13.7%	471	86.3%
- Cortisone	335	73	21.8%	262	78.2%
- Fluocinonide	185	2	1.1%	183	98.9%
- Other corticosteroid	26	0	-	26	100.0%
Diuretics	17	2	11.8%	15	88.2%
Dopamine Agonists	72	11	15.3%	61	84.7%
Erectile Dysfunction medications	388	62	16.0%	326	84.0%
- CIALIS	164	32	19.5%	132	80.5%
- VIAGRA	119	17	14.3%	102	85.7%
- Other erectile dysfunction	105	13	12.4%	92	87.6%
Fibric Acid	11	0	-	11	100.0%
GI Agents	233	41	17.6%	192	82.4%
- AMITIZA	202	36	17.8%	166	82.2%
- Other GI agent	31	5	16.1%	26	83.9%
H2 Blocker	1,511	214	14.2%	1,297	85.8%
- Famotidine	485	75	15.5%	410	84.5%
- PEPCID	249	24	9.6%	225	90.4%
- Ranitidine	410	49	12.0%	361	88.0%
- ZANTAC	336	64	19.0%	272	81.0%
- Other H2 blocker	31	2	6.5%	29	93.5%
Hormones	1,159	118	10.2%	1,041	89.8%
- Dexamethasone	101	9	8.9%	92	91.1%
- MEDROL	491	45	9.2%	446	90.8%
- Methylprednisolone	161	11	6.8%	150	93.2%
- Prednisone	201	24	11.9%	177	88.1%
- Other hormone	205	29	14.1%	176	85.9%
Laxative	1,737	272	15.7%	1,465	84.3%
- COLACE	638	85	13.3%	553	86.7%
- Docusate	291	44	15.1%	247	84.9%
- MIRALAX	116	15	12.9%	101	87.1%
- Senna	200	50	25.0%	150	75.0%
- SENOKOT	176	33	18.8%	143	81.3%
- Other laxative	316	45	14.2%	271	85.8%
Miscellaneous Analgesics	753	59	7.8%	694	92.2%
- FIORICET	291	4	1.4%	287	98.6%
- Other misc. analgesic	462	55	11.9%	407	88.1%

	# Requests	Overturned	% Overturn	Upheld	% Upholds
Muscle Relaxants	20,648	856	4.1%	19,792	95.9%
- Baclofen	1,950	100	5.1%	1,850	94.9%
- Carisoprodol	502	3	0.6%	499	99.4%
- Chlorzoxazone	111	3	2.7%	108	97.3%
- Cyclobenzaprine (including ER)	5,029	172	3.4%	4,857	96.6%
- FEXMID	293	1	0.3%	292	99.7%
- FLEXERIL	4,173	137	3.3%	4,036	96.7%
- LORZONE	106	2	1.9%	104	98.1%
- Metaxalone	301	11	3.7%	290	96.3%
- Methocarbamol	547	26	4.8%	521	95.2%
- NORFLEX	283	15	5.3%	268	94.7%
- Orphenadrine	267	16	6.0%	251	94.0%
- ROBAXIN	980	50	5.1%	930	94.9%
- SKELAXIN	242	13	5.4%	229	94.6%
- SOMA	1,753	14	0.8%	1,739	99.2%
- Tizanidine	2,515	187	7.4%	2,328	92.6%
- ZANAFLEX	1,315	93	7.1%	1,222	92.9%
- Other muscle relaxant	281	13	4.6%	268	95.4%
NSAIDs	13,044	1,988	15.2%	11,056	84.8%
- Acetaminophen	129	25	19.4%	104	80.6%
- ANAPROX (including DS)	177	29	16.4%	148	83.6%
- ANSAID	148	21	14.2%	127	85.8%
- Aspirin	146	15	10.3%	131	89.7%
- CELEBREX	1,309	181	13.8%	1,128	86.2%
- Celecoxib	449	63	14.0%	386	86.0%
- Diclofenac (sodium, potassium)	1,416	124	8.8%	1,292	91.2%
- Etodolac (including ER)	93	18	19.4%	75	80.6%
- Fenoprofen	148	21	14.2%	127	85.8%
- Flurbiprofen	203	16	7.9%	187	92.1%
- Ibuprofen	1,959	376	19.2%	1,583	80.8%
- Ketoprofen (includes ER)	341	41	12.0%	300	88.0%
- Ketorolac	140	13	9.3%	127	90.7%
- Meloxicam	447	80	17.9%	367	82.1%
- MOBIC	584	93	15.9%	491	84.1%
- MOTRIN	527	85	16.1%	442	83.9%
- Nabumetone	184	30	16.3%	154	83.7%
- NAPROSYN	566	107	18.9%	459	81.1%
- Naproxen (including ER)	2,281	419	18.4%	1,862	81.6%
- RELAFEN	166	39	23.5%	127	76.5%
- TORADOL	348	40	11.5%	308	88.5%
- TYLENOL	280	63	22.5%	217	77.5%
- VOLTAREN (includes XR)	406	34	8.4%	372	91.6%
- ZIPSOR	178	6	3.4%	172	96.6%
- Other NSAID	419	49	11.7%	370	88.3%

	# Requests	Overtured	% Overturn	Upheld	% Upholds
Nutritional Products	709	56	7.9%	653	92.1%
Opioid Antagonists	441	59	13.4%	382	86.6%
- MOVANTIK	337	39	11.6%	298	88.4%
- Other opioid antagonist	104	20	19.2%	84	80.8%
Opioids	48,869	4,768	9.8%	44,101	90.2%
- BELBUCA	167	21	12.6%	146	87.4%
- Buprenorphine (including ER)	125	32	25.6%	93	74.4%
- Codeine/Acetaminophen	579	44	7.6%	535	92.4%
- DILAUDID	476	58	12.2%	418	87.8%
- Hydrocodone (including ER)	4,797	463	9.7%	4,334	90.3%
- Hydromorphone (including ER)	178	25	14.0%	153	86.0%
- KADIAN	97	13	13.4%	84	86.6%
- Methadone	609	63	10.3%	546	89.7%
- Morphine (including ER)	1,014	120	11.8%	894	88.2%
- MS-CONTIN (including ER)	813	101	12.4%	712	87.6%
- MSIR	105	11	10.5%	94	89.5%
- NARCAN	110	28	25.5%	82	74.5%
- NORCO	16,691	1,622	9.7%	15,069	90.3%
- NUCYNTA	732	88	12.0%	644	88.0%
- OPANA (including ER)	77	10	13.0%	67	87.0%
- Oxycodone (including ER)	3,328	340	10.2%	2,988	89.8%
- OXYCONTIN	1,099	127	11.6%	972	88.4%
- PERCOCET	3,418	356	10.4%	3,062	89.6%
- ROXICODONE	118	13	11.0%	105	89.0%
- SUBOXONE	207	30	14.5%	177	85.5%
- Tramadol (including ER)	9,269	834	9.0%	8,435	91.0%
- TREZIX	99	1	1.0%	98	99.0%
- TYLENOL with Codeine	1,776	108	6.1%	1,668	93.9%
- ULTRACET	531	45	8.5%	486	91.5%
- ULTRAM (including ER)	1,325	97	7.3%	1,228	92.7%
- VICODIN	260	25	9.6%	235	90.4%
- VICOPROFEN	75	4	5.3%	71	94.7%
- Other opioid	794	89	11.2%	705	88.8%

	# Requests	Overturned	% Overturn	Upheld	% Upholds
Proton Pump Inhibitors (PPI)	5,456	581	10.6%	4,875	89.4%
- ACIPHEX	100	11	11.0%	89	89.0%
- DUEXIS	116	12	10.3%	104	89.7%
- Esomeprazole	113	18	15.9%	95	84.1%
- Lansoprazole	743	77	10.4%	666	89.6%
- NEXIUM	279	26	9.3%	253	90.7%
- Omeprazole	1,542	177	11.5%	1,365	88.5%
- Pantoprazole	687	71	10.3%	616	89.7%
- PREVACID	591	41	6.9%	550	93.1%
- PRILOSEC	780	91	11.7%	689	88.3%
- PROTONIX	282	22	7.8%	260	92.2%
- Rabeprazole	127	21	16.5%	106	83.5%
- Other proton pump inhibitor	96	14	14.6%	82	85.4%
Sedative-Hypnotics	7,362	495	6.7%	6,867	93.3%
- AMBIEN (including CR)	1,665	26	1.6%	1,639	98.4%
- ATARAX	95	16	16.8%	79	83.2%
- BELSOMRA	75	5	6.7%	70	93.3%
- BUSPAR	122	23	18.9%	99	81.1%
- Buspirone	131	37	28.2%	94	71.8%
- Eszopiclone	264	11	4.2%	253	95.8%
- Hydroxyzine	115	12	10.4%	103	89.6%
- LUNESTA	589	25	4.2%	564	95.8%
- Moderate Sedation	2,008	99	4.9%	1,909	95.1%
- Trazadone	1,177	199	16.9%	978	83.1%
- VISTARIL	127	12	9.4%	115	90.6%
- Zolpidem (including ER)	770	10	1.3%	760	98.7%
- Other sedative-hypnotic	224	20	8.9%	204	91.1%
Statins	109	23	21.1%	86	78.9%
Stimulants	301	24	8.0%	277	92.0%
Topical Compounds	165	13	7.9%	152	92.1%
Tumor Necrosis Factor Modifiers	18	3	16.7%	15	83.3%
Viscosupplementation	805	49	6.1%	756	93.9%
- EUFLEXXA	114	6	5.3%	108	94.7%
- ORTHOVISC Injection	366	30	8.2%	336	91.8%
- SUPARTZ Injection	222	9	4.1%	213	95.9%
- Other viscosupplementation	103	4	3.9%	99	96.1%

	# Requests	Overtured	% Overturn	Upheld	% Upholds
Topical Analgesics	18,299	941	5.1%	17,358	94.9%
- BIOFREEZE	156	10	6.4%	146	93.6%
- Buprenorphine	216	29	13.4%	187	86.6%
- BUTRANS	580	64	11.0%	516	89.0%
- Capsaicin	237	21	8.9%	216	91.1%
- Cyclobenzaprine	149	0	-	149	100.0%
- DENDRACIN	146	4	2.7%	142	97.3%
- Diclofenac	1,095	72	6.6%	1,023	93.4%
- DURAGESIC	218	30	13.8%	188	86.2%
- ENOVA ^{RX}	163	6	3.7%	157	96.3%
- Fentanyl (Transdermal System)	607	65	10.7%	542	89.3%
- Flurbiprofen	307	1	0.3%	306	99.7%
- Gabapentin	153	5	3.3%	148	96.7%
- Ketamine	92	1	1.1%	91	98.9%
- Ketoprofen	143	4	2.8%	139	97.2%
- Lidocaine	3,679	125	3.4%	3,554	96.6%
- LIDODERM	2,179	102	4.7%	2,077	95.3%
- LIDOPRO	2,144	49	2.3%	2,095	97.7%
- Miscellaneous topical non-opioids	1,762	59	3.3%	1,703	96.7%
- Miscellaneous topical opioids	89	4	4.5%	85	95.5%
- PENNSAID	189	20	10.6%	169	89.4%
- TEROGIN	613	28	4.6%	585	95.4%
- VOLTAREN Gel	2,124	177	8.3%	1,947	91.7%
- Other topical analgesic	1,258	65	5.2%	1,193	94.8%

Miscellaneous Pharmaceuticals (antiarrhythmic, anti-Parkinson's, antiviral, antitussive, cholinergic agonist, gout medication, prostaglandin, and synthetic ovulation stimulant)	34	5	14.7%	29	85.3%
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N = 150,241 treatment requests for pharmaceuticals issued January–December 2018.
Source: DWC.

Appendix K: Medical Treatment Utilization Schedule Citations, 2018

8 C.C.R.	Section	Count
§9792.22	<i>General Approaches</i>	
	- Prevention	0
	- General Approach to Initial Assessment and Documentation	6
	- Initial Approaches to Treatment	7,392
	- Cornerstones of Disability Prevention and Management	19
§9792.23	<i>Clinical Topics</i>	
§9792.23.1	Cervical and Thoracic Spine Disorders Guideline	25,397
§9792.23.2	Shoulder Disorders Guideline	15,025
§9792.23.3	Elbow Disorders Guideline	3,055
§9792.23.4	Hand, Wrist, and Forearm Disorders Guideline	8,877
§9792.23.5	Low Back Disorders Guideline	61,058
§9792.23.6	Knee Disorders Guideline	13,720
§9792.23.7	Ankle and Foot Disorders Guideline	3,761
§9792.23.9	Eye Disorders Guideline	36
§9792.23.10	Hip and Groin Guideline	1,777
§9792.23.11	Occupational/Work Related Asthma Guideline	70
§9792.23.12	Occupational Interstitial Lung Disease Guideline	29
§9792.24	<i>Special Topics</i>	
§9792.24.2	Chronic Pain Guidelines	85,901
§9792.24.4	Opioids Guideline	53,146
§9792.24.5	Traumatic Brain Injury	55
	Total	279,324

Note: More than one section of the MTUS was cited in the decision for 13,257 treatment requests.

N = 360,124 treatment requests from 184,733 IMR case decisions issued January–December 2018.
Source: DWC.

Appendix L: Expert Reviewer Relevant Specialty

	Reviewed Cases
Addiction Psychology	7
Cardiovascular Disease	4
Child & Adolescent Psychiatry	67
Chiropractic	411
Dentist	271
Dermatology	19
Emergency Medicine	11,359
Family Practice	24,920
Geriatric Psychiatry	978
Hand Surgery	151
Hospice & Palliative Medicine	2,178
Internal Medicine	10,354
Interventional Cardiology	2
Medical Oncology	8
Neurological Surgery	1,854
Occupational Medicine	40,733
Ophthalmology	89
Oriental Medicine	2,729
Orthopedic Surgery	14,820
Pain Management	18,156
Physical Medicine & Rehabilitation	33,384
Plastic Surgery	322
Podiatrist	301
Preventive Medicine	2,452
Psychiatry	1,500
Psychology	1,817
Public Health & General Preventive Medicine	1,536
Pulmonary Disease	211
Radiation Oncology	1
Rheumatology	4,366
Sleep Medicine	125
Sports Medicine	1,481
Surgery	88
Surgical Critical Care	2,830
Undersea & Hyperbaric Medicine	5,140
Urology	69
Total	184,733

N = 184,733 IMR case decisions issued January–December 2018.
Source: DWC.