2016 Independent Medical Review (IMR) Report: Analysis of 2014-2015 Data

CALIFORNIA LABOR AND WORKFORCE DEVELOPMENT AGENCY (LWDA)

DAVID LANIER, SECRETARY

CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (DIR)

CHRISTINE BAKER, DIRECTOR

DIVISION OF WORKERS COMPENSATION (DWC)

GEORGE PARISOTTO, ACTING ADMINISTRATIVE DIRECTOR

Contents

Executive Summary 4
Introduction 5
About IMR 5
IMR Program Enhancements, 2014 and 2015 5
Methodology 6
Results 6
The IMR Timeline 8
Ineligible IMR Applications 8
Timeliness of IMR Decisions 8
Expedited Cases 9
Closed Cases 10
Pharmacy-Only Cases 11
Year-End Final Status 11
Who Files for IMR? 12
Geographic Region 12
Worker Representation 13
Year of Injury 14
Disputed Treatments 14
Decisions by Treatment Category 15
Pharmaceuticals 18
Rehabilitation Services, 2015 20
IMR Decisions and Application of MTUS Guidelines 20
Physician Reviewers 20
Review of IMR Decisions for Quality 22
Conclusion and Future Directions 28
Appendices 30
Appendix A: The Independent Medical Review Process 30
Appendix B: IMR Applications Received by Month, 2014-2015 31

Appendix C: Ineligible Applications by Month, 2015 32
Appendix D: Geographic Regions Defined by Constituent Counties..... 33
Appendix E: Geographic Distribution WCIS Claims & IMR Case Decisions, 2014 & 2015 34
Appendix F: IMR Case-Level Results, Represented and Not Represented, 2014 & 2015 35
Appendix G: Year of Injury, 2015 (IMR Decisions)..... 35
Appendix H: Number of Treatment Requests per IMR Case, 2014 & 2015 35
Appendix I: IMR Decisions by Treatment Category, 2014 36
Appendix J: IMR Decisions by Treatment Category, 2015..... 36
Appendix K: IMR Decisions for Pharmaceutical Treatment Requests, by Drug Class, 2014 37
Appendix L: IMR Decisions for Pharmaceutical Treatment Requests, by Drug Class, 2015 38
Appendix M: IMR Decisions for Rehabilitation Services, by Subcategory, 2015..... 39
Appendix N: Expert Reviewer Relevant Specialty..... 40
Appendix O: 53 IMR Cases by FDL Year, Method of Selection, and Opioids..... 41
Appendix P: IMR Reviewer Specialty and State of Licensing: 53 IMR Opioid Cases 41

Executive Summary

In September 2012, Governor Jerry Brown signed Senate Bill 863 into law. This reform of the workers' compensation system in California included Independent Medical Review (IMR), which went into effect January 1, 2013. IMR established an efficient process that uses the principles of evidence-based medicine to resolve disputes regarding the medical necessity of treatment requested for injured workers.

In the second and third years that the program was in effect (2014 and 2015), nearly 482,000 IMR applications were processed, of which 64% (approximately 308,000) were determined to be eligible for review. Concurrently, during this period, over 309,000 IMR determinations were issued; this includes some that originated in 2013 but were decided the following year. Requests for pharmaceuticals comprised nearly half the issues in dispute, with opioids the most common subject of a request for review.

At the end of 2014, the average length of time to issue IMR determinations, after all necessary medical records had been received, was 56 days. By mid-2015, the monthly average decreased to ten days, increasing slightly at the end of that year because of an effort to reduce a backlog. IMR applications in California originate from the same geographic regions as the overall activity in claims at a proportionate rate. The majority of applications are submitted by injured workers who are represented by an attorney or other entity acting on their behalf. For those seeking treatment in the past two years, the age of their injuries varied from less than one year to more than thirty years.

Overall for the period, 10% of treatment requests denied through the Utilization Review (UR) process were overturned. Evaluation and Management requests, such as specialist consultations and dental services, had the highest rate of being overturned (20% in 2014, 30% in 2015). Requests for home health services, health-related programs, and transportation were overturned at a lower rate than the overall average (5%-7% each year).

Medical practitioners licensed in California reviewed the majority of IMR cases in both calendar years. Their most common board certifications are physical medicine & rehabilitation, occupational medicine, and family practice. Although the reviewers applied the guidelines of the Medical Treatment Utilization Schedule (MTUS) in the majority of treatment evaluations, qualitative assessment found gaps between recommended practices and treating physician documentation in medical records, which indicate a need for further physician education.

Several enhancements to IMR occurred in 2014-15, including expansion of the use of electronic filing of medical records; development of reporting tools; and changes in the fee structure for filing applications. Further improvements to the program will include an online physician education module on the use of the MTUS, continued development of the search tool for public access to IMR decisions, and revisions to the IMR regulations to require electronic filing of applications.

Introduction

Independent Medical Review (IMR) is an efficient, expedient process for resolving disputes over the appropriateness of medical treatment that is recommended by physicians for injured workers but rejected in Utilization Review (UR). This report analyzes the second and third years of the program after its inception on January 1, 2013.

About IMR

A UR decision delaying, modifying, or denying a requested treatment on the grounds that 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.

An injured worker or legal representative 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. If the application is considered eligible, the independent medical review organization (IMRO) requests medical records from the UR claims administrator. After records are received, the IMRO assigns the case to an expert physician reviewer from a list of independent medical professionals. Unless terminated or withdrawn during the process, the case is resolved when the assigned physician reviewer communicates the IMR decision(s) to the worker or representative, as well as to the employer or insurer, in a Final Determination Letter (FDL) written in lay terms.

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 December 31, 2017.

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

IMR Program Enhancements, 2014 and 2015

DWC, in collaboration with Maximus, made a number of enhancements to the IMR program in 2014 and 2015 that improved the program's functioning, created greater transparency, and assisted with data analysis.

- Electronic Medical Records. In early 2015, expanded use of the IMRO's Safe File Transfer Portal for the submission of medical records directly affected the timeliness of cases being reviewed and decided.
- entellitrak®. With input from DWC, modifications and updates have improved the IMRO's software/database systems to increase its practicality.
- Data Reporting. The IMRO now reports some IMR metrics in real time, which is used for posting on the IMR Updates page.

- Service Categories. Treatment requests are sorted into discrete categories for better analysis and tracking of disputed issues.
- Reduction in Cost. Effective January 1, 2015, the application fee for an IMR was reduced from $390 to $345 if all treatment requests were pharmaceutical only.

This report contains an analysis of all IMR applications received by the IMRO between January 1, 2014, and December 31, 2015. Some applications were received at the end of this period, so decisions on those cases are issued in the next calendar year. The report also contains an analysis of all Final Determination Letters (FDLs) issued by the IMRO between January 1, 2014, and December 31, 2015. Some of the decisions issued at the beginning of this period were the result of applications submitted in 2013.

Methodology

The IMRO provides the DWC with data extracted from its proprietary software. DWC obtains statewide data on workers' compensation claims from the Workers' Compensation Information System (WCIS) (available at http://www.dir.ca.gov/dwc/wcis/WCIS_Reports.html).

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 United States Postal ZIP Code Table identifying ZIP Codes by county. Counties were then grouped together by region (Appendix D). In 2015, DWC and Maximus refined the classification of treatment requests. There are 10 nonpharmaceutical categories plus a pharmaceutical category with subcategories by drug class.

The field in the IMR application where the treatment request is indicated is free form and is not easy to categorize. Treatment requests in 2014 and 2015 data were retroactively categorized using an IMRO computer algorithm, and 26,289 of 274,598 (9.6%) for 2014 and 26,028 of 308,765 (8.4%) for 2015 remained unclassified (Appendices I & J). In 2016, the IMRO had trained personnel implement manual classification, which should provide accurate subcategories for nonpharmaceutical treatment and reduce the number of unclassified treatments.

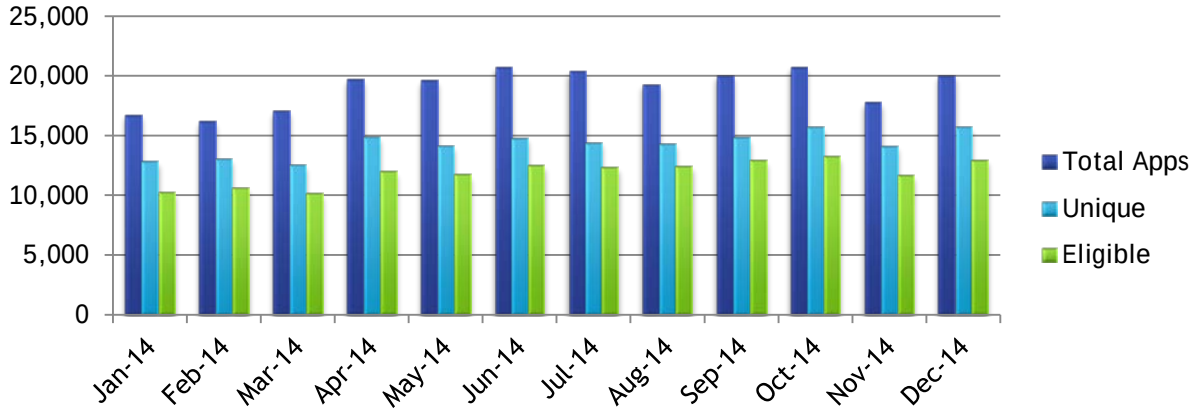
Results

In 2014 and 2015, the IMRO received **481,986** IMR applications, or a monthly average of 20,083, of which nearly one in four (23.5%) were duplicates of applications previously received. After subtracting duplicate applications, the number of "unique" IMR applications received was **367,377**, a monthly average of 15,305. (See Figure 1.)

After an application is determined not to be a duplicate, it is screened for eligibility. The IMR request may be rejected for lacking the injured worker's signature, for not having the UR report attached, for not being submitted on time (i.e., within 30 days of receipt of

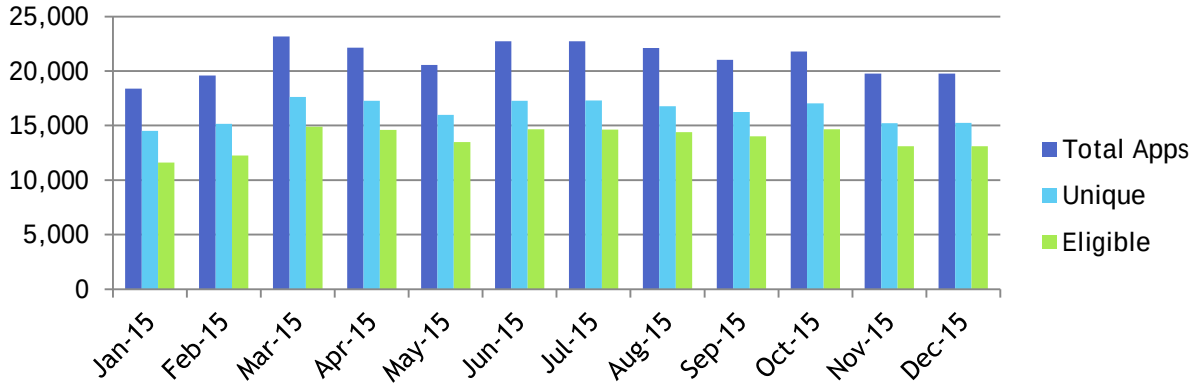
the UR decision), or if the UR is not valid (conditionally noncertified). In 2014 and 2015, **308,086** eligible applications were processed by the IMRO, a monthly average of 12,837. In the second half of 2015, at least 13,000 applications were deemed eligible each month, and that number has remained relatively stable.

Figure 1a: IMR Applications Received by Month, 2014



N = 228,207 IMR applications received in 2014, of which 171,704 were unique applications and 142,658 were eligible applications.
Source: DWC.

Figure 1b: IMR Applications Received by Month, 2015



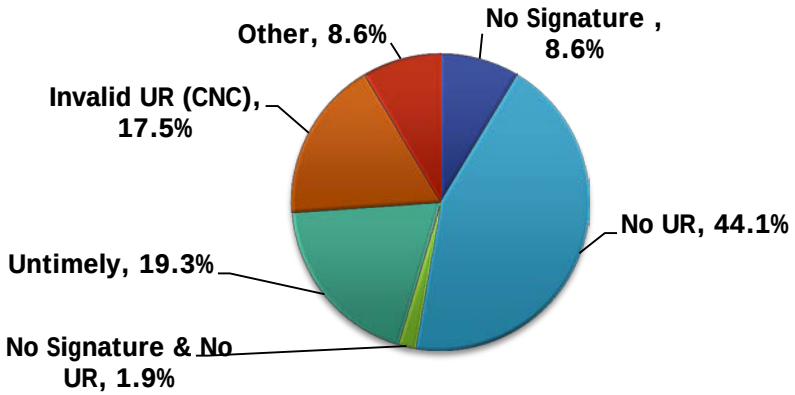
N = 253,779 IMR applications received in 2015, of which 195,685 were unique applications and 165,427 were eligible applications.
Source: DWC.

The IMR Timeline

Ineligible IMR Applications

An analysis of 2015 data showed that nearly 3,000 IMR applications were determined to be ineligible each month. That number steadily decreased over the year. By the end of the year, it was closer to 2,000. (See Figure 2.)

Figure 2: Reasons for IMR Ineligibility (All), 2015



N = 253,779 IMR applications received in 2015, of which 30,320 (12%) were ineligible.

Source: DWC.

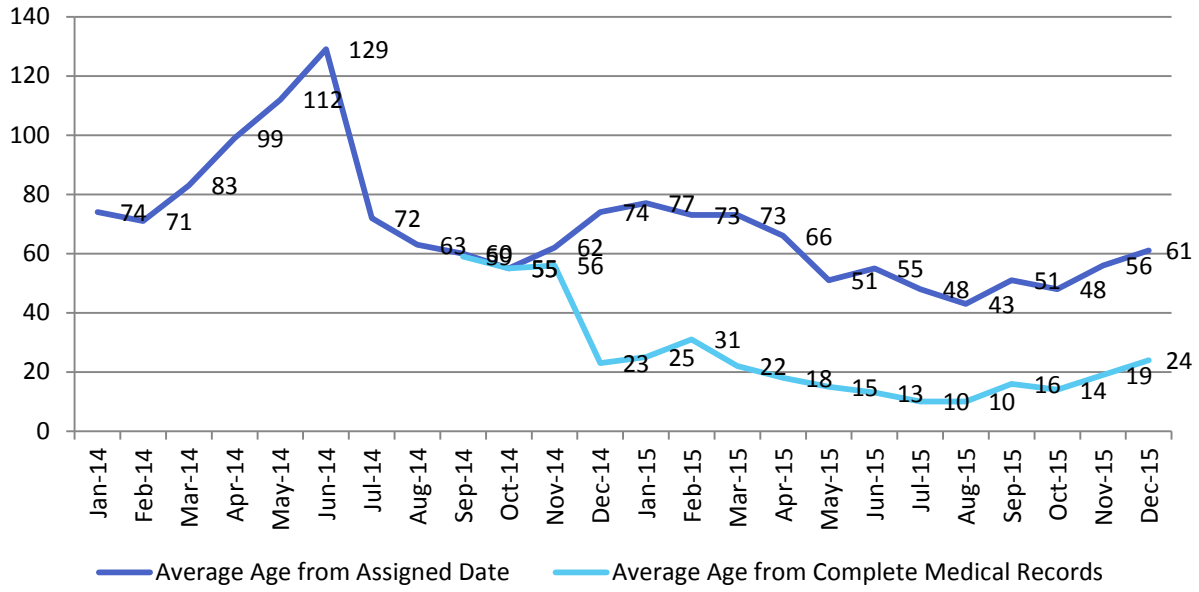
An IMR application is ineligible (1) if it lacks the signature of the injured worker (or representative); (2) if it is not on time, that is, not submitted within 30 days of receipt of the UR decision; (3) if the UR report is not attached to the application, or (4) if the UR is not valid (conditionally noncertified).

Timeliness of IMR Decisions

IMR decisions must be issued within 30 days of receipt of the medical records and an expedited application within 72 hours. In 2013 and 2014 meeting this deadline proved challenging. Steps taken included the following: IMRO implemented electronic submission of medical records, and the DWC fined some claims administrators who were late in submitting records. Subsequently the average number of days to complete IMRs has been considerably reduced.

By mid-2015, it took an average of ten days to issue the IMR decision after the complete medical records were received. This average increased at the end of 2015, as a surge of records was received by the IMRO for many older cases that were still open. At the peak of the backlog, the IMRO began to track the number of days that an IMR was issued after it received complete medical records (Figure 3).

Figure 3: Average Number of Days to Complete Standard IMRs, 2014 & 2015



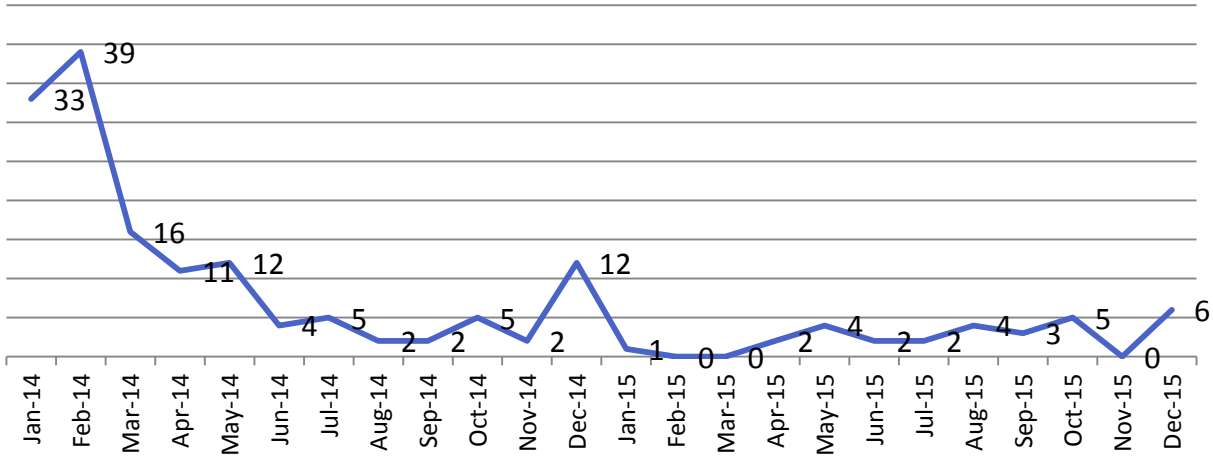
N = 309,336 IMR cases (standard determinations), January 2014-December 2015.
Source: DWC.

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

Expedited Cases

In 2014, 143 expedited cases were decided, of which the majority were issued in the first quarter. Only 29 were issued in 2015. For the last six months of 2015, the average number of days required by the IMRO to issue these decisions ranged from 2 to 2.5. (See Figure 4.)

Figure 4: Number of IMR Expedited Case Decisions by Month, 2014 & 2015



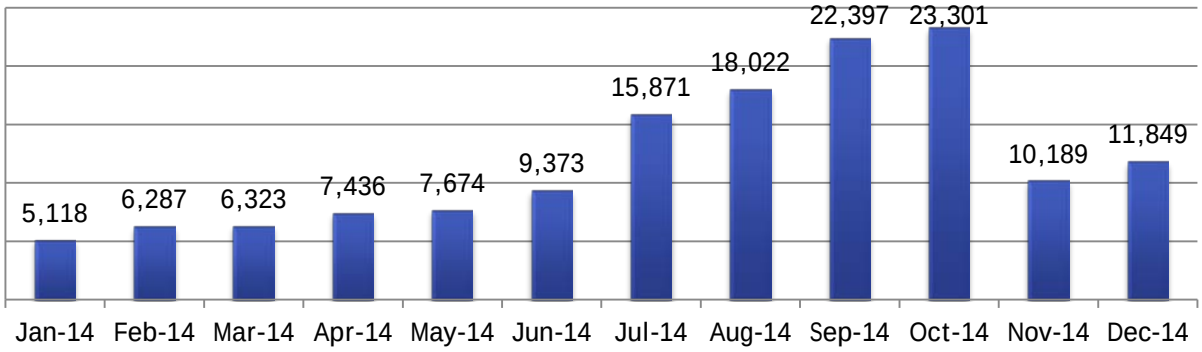
N = 172 IMR cases (expedited determinations), January 2014-December 2015.
Source: DWC.

> "Expedited review" means UR or IMR was 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 time frame 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)

Closed Cases

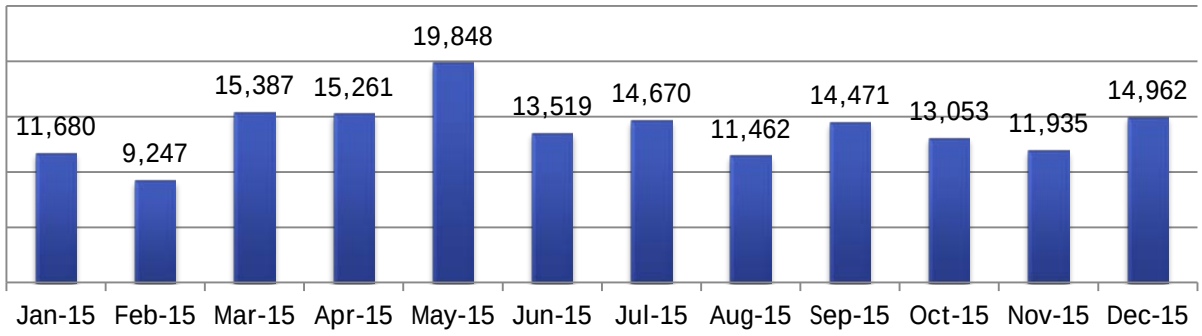
At the beginning of 2014, the IMRO issued slightly over 5,000 FDLs. The monthly totals increased dramatically after the addition of expert reviewers and more effective efforts to receive medical records from the claims administrators. By the end of 2014, any backlog that had accumulated was erased, and the number of applications received matched the number of FDLs issued. (See Figure 5.)

Figure 5a: IMR Final Determination Letters by Month, 2014



N = 143,840 IMR cases (standard determinations), January-December 2014.
Source: DWC.

Figure 5b: IMR Final Determination Letters by Month, 2015

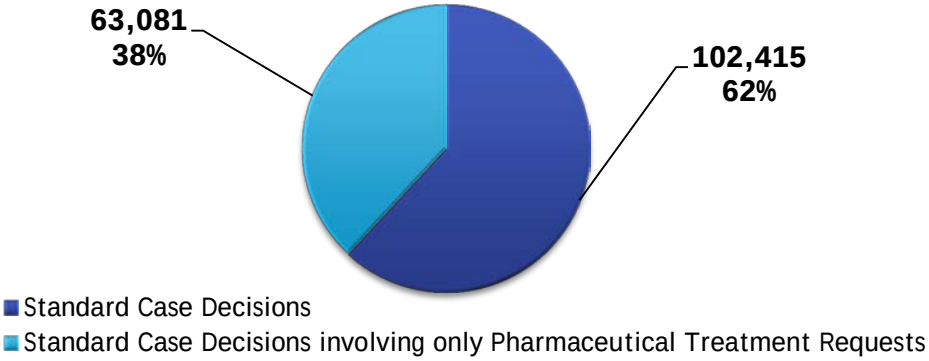


N = 165,496 IMR cases (standard determinations), January-December 2015.
Source: DWC.

Pharmacy-Only Cases

In 2015, 38% of IMR applications contained only pharmacy-related treatment requests, thus they were eligible for the lower application price of $345, rather than $390. (See Figure 6.)

Figure 6: Accepted IMR Applications for Pharmacy Only, 2015



N = 165,496 IMR cases (standard determinations), January-December 2015.
Source: DWC.

Year-End Final Status

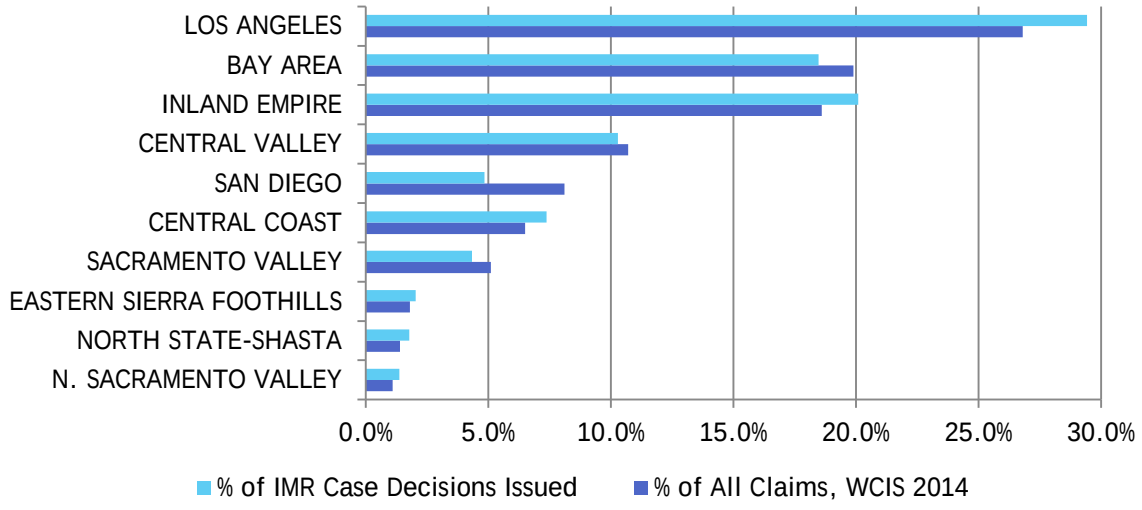
At the end of 2014, 14,135 cases remained open, of which 719 awaited the submission of medical records by the claims administrator. The remainder were in the process of eligibility review, expert case review, or finalization. At the end of 2015, the number of open cases declined to 10,395, of which only 283 awaited medical records.

Who Files for IMR?

Geographic Region

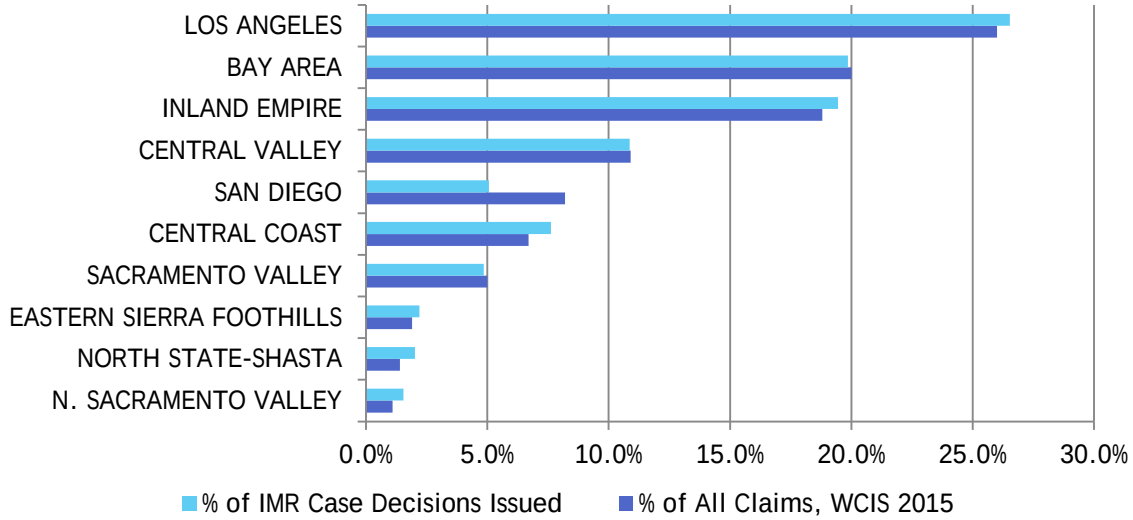
The number of claims filed in each geographic region per year compared with the number of IMR cases issued that year show similar rates, with the most variance noted in San Diego. (See Figure 7.)

Figure 7a: Geographic Region of Injured Worker, 2014



N = 602,186 claims filed in 2014; 143,983 IMR cases decided in 2014.
Source: DWC, Workers' Compensation Information System (WCIS).

Figure 7b: Geographic Region of Injured Worker, 2015

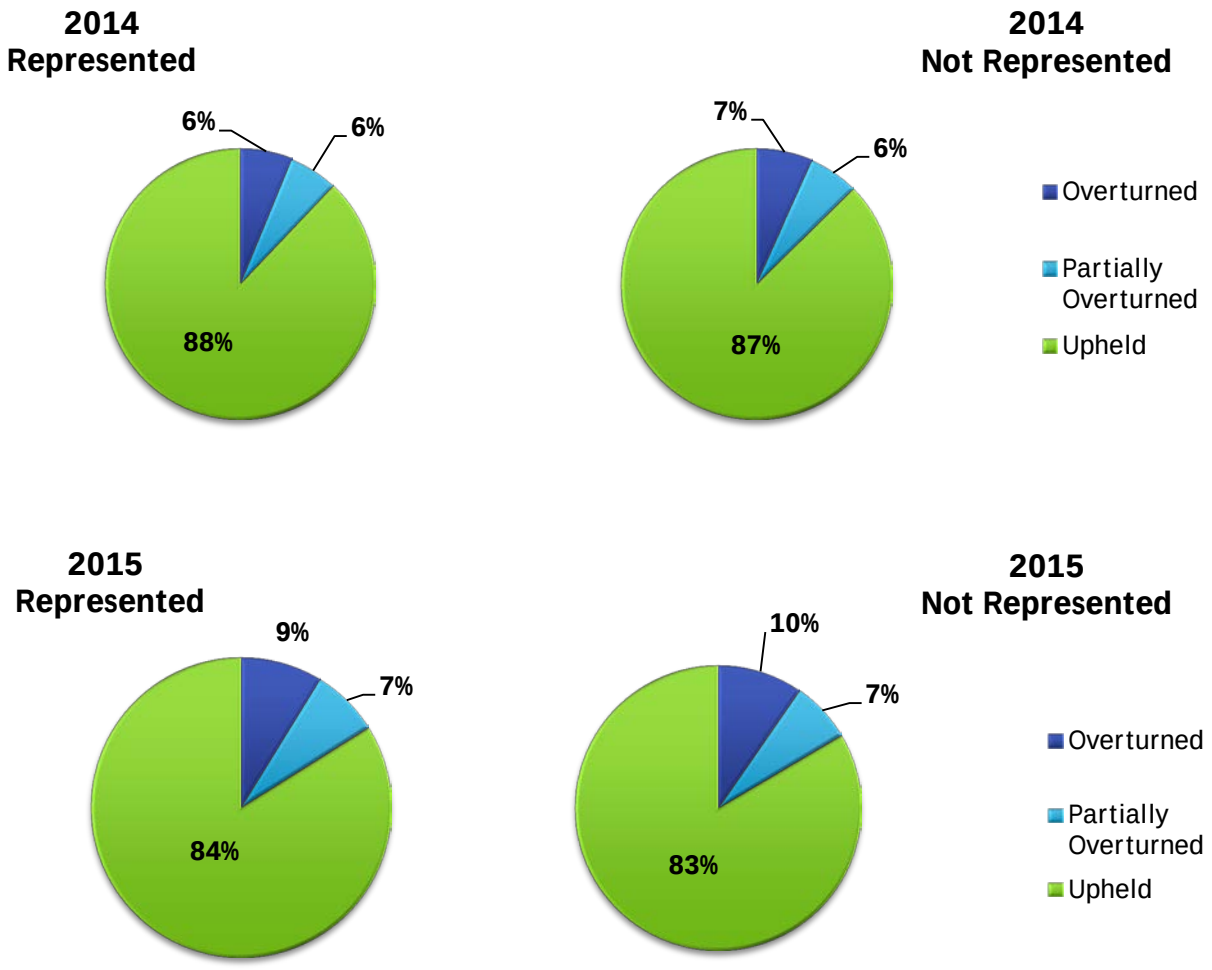


N = 591,757 Claims filed in 2015; 165,525 IMR cases decided in 2015.
Source: DWC, Workers' Compensation Information System (WCIS).

Worker Representation

In 2014, 109,804 (76%) of the 143,983 IMR decisions were for applications that listed representation for the injured worker. In 2015, 156,827 (95%) of the 165,525 were represented. Ratios of case outcomes were almost identical for represented and unrepresented applicants (see Figure 8 and Appendix F). The overall outcome of IMR reviews is at the case level; a case may contain one or more treatment requests.

Figure 8: IMR Case Outcome by Representation Status, 2014 & 2015



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

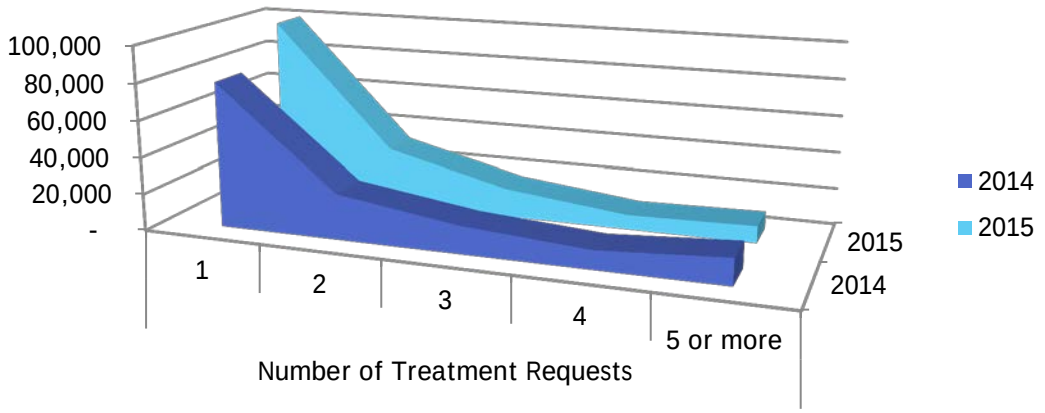
Year of Injury

IMR decisions are issued for claims with all dates of injury. In 2015, nearly one-third of all decisions issued (32%) related to injuries suffered in 2015 and the two previous years. In at least one of every four cases (25%), the injury occurred prior to 2006 (Appendix G).

Disputed Treatment Request

"Treatment request" refers to the medical treatment that was denied in UR and challenged through the IMR process. IMR cases have one or more disputed treatments. The average per IMR case is two disputed treatments, with over half of the cases in 2014 and 2015 having only one (Figure 9).

Figure 9: Number of Disputed Treatment Requests per IMR Case, 2014 & 2015

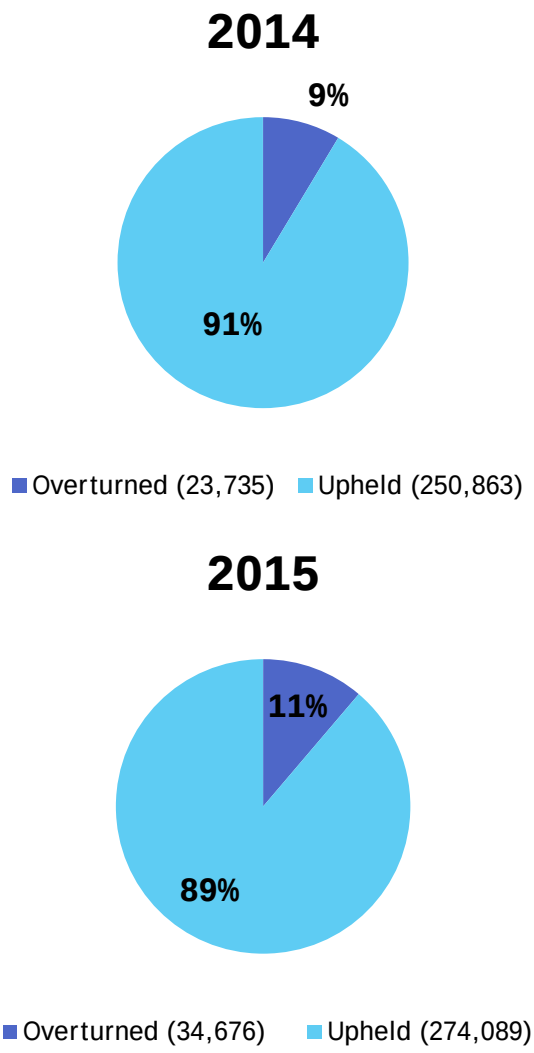


N = 274,598 treatment requests from 143,983 FDLs in 2014; *N* = 308,765 treatment requests from 165,525 FDLs in 2015.
Source: DWC.

From 2014 to 2015, the number of cases increased 13%. The number of submitted cases increased, but they comprised fewer treatment requests (Appendix H).

In 2014, approximately one of every *eleven* treatment requests (9%) that was denied in UR was overturned. In 2015, about one of every *nine* treatment requests (11%) denied in UR was overturned (Figure 10).

Figure 10: All Treatment Request Outcomes, 2014 & 2015

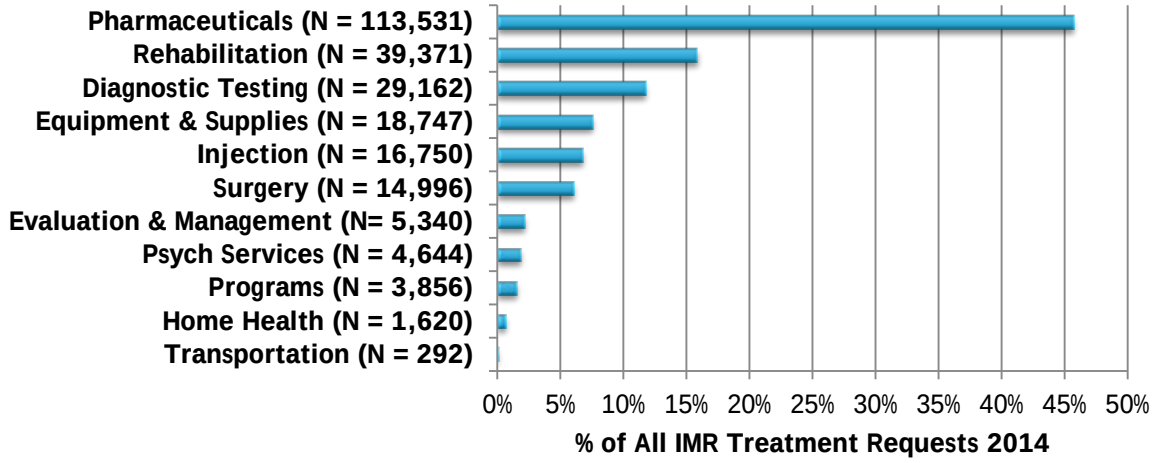


Upheld. The IMRO decided that the disputed service ***was not*** medically necessary and appropriate.
Overturned. The IMRO decided that the disputed service ***is*** medically necessary and appropriate.

Decisions by Treatment Category

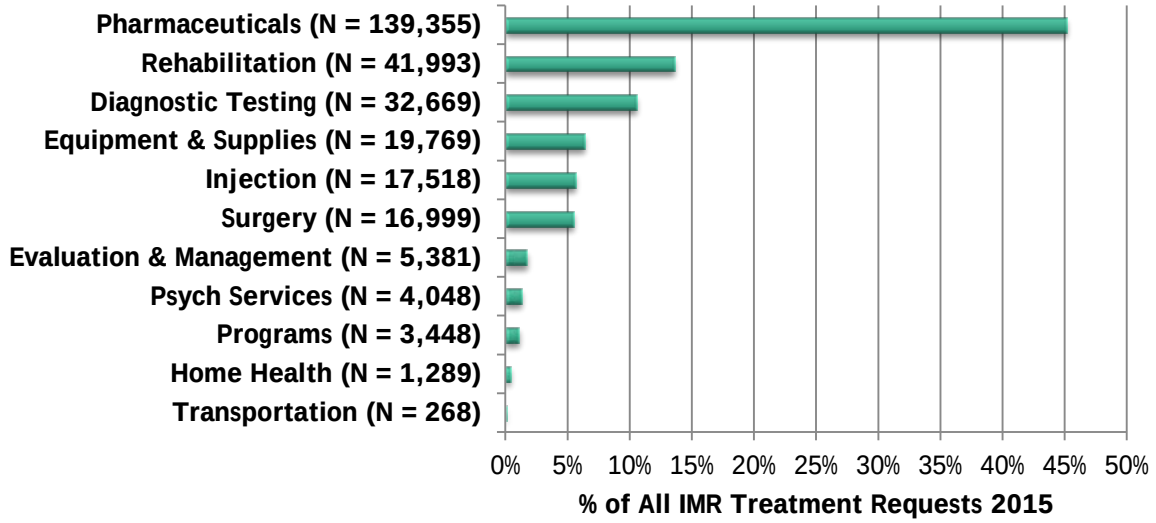
Pharmaceuticals were by far the most common treatment category in both 2014 (46%) and 2015 (49%), with requests for rehabilitation services a distant second. Rehabilitation includes physical therapy/occupational therapy, chiropractic, and acupuncture services. Diagnostic testing was third, followed by equipment and supplies [durable medical equipment, orthotics, and supplies (DMEPOS)]. Injections, which rank fourth, mean therapeutic injections to the spine and joints. (See Figure 11.)

Figure 11a: Categories of Disputed Treatment Requests, by Percentage, 2014



N = 248,309 treatment requests from 143,983 FDLs in 2014.
Note: 26,289 (9.6%) treatment requests were uncategorized.
Source: DWC.

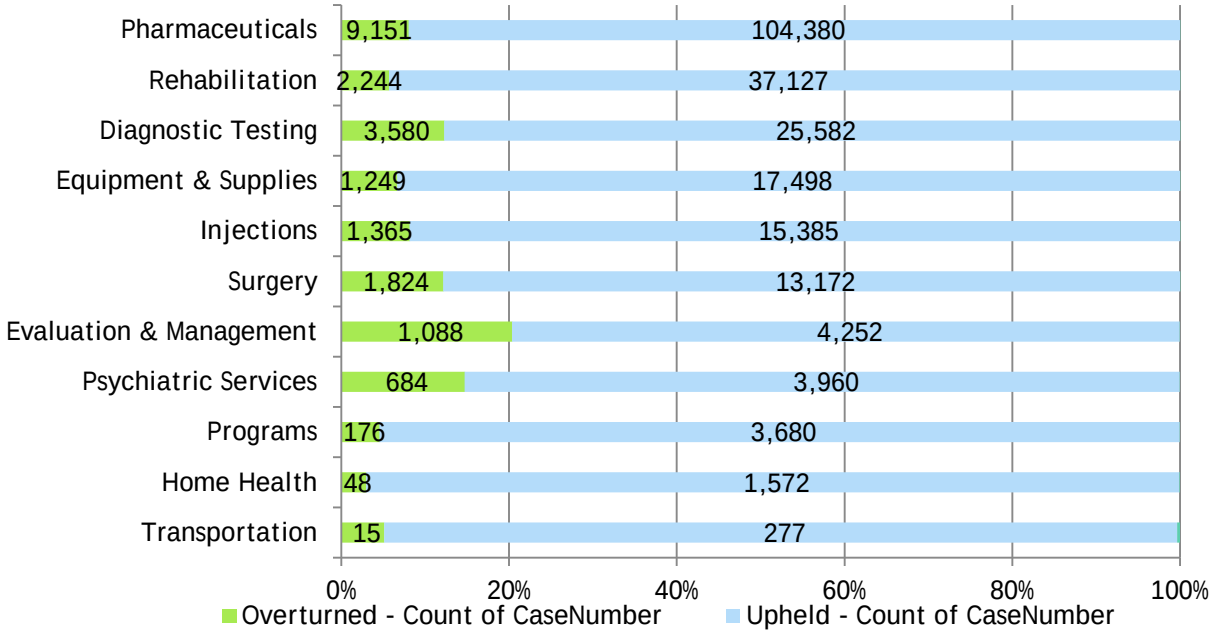
Figure 11b: Categories of Disputed Treatment Requests, by Percentage, 2015



N = 282,737 treatment requests from 165,525 FDLs.
Note: 26,028 (8.4%) treatment requests were uncategorized.
Source: DWC.

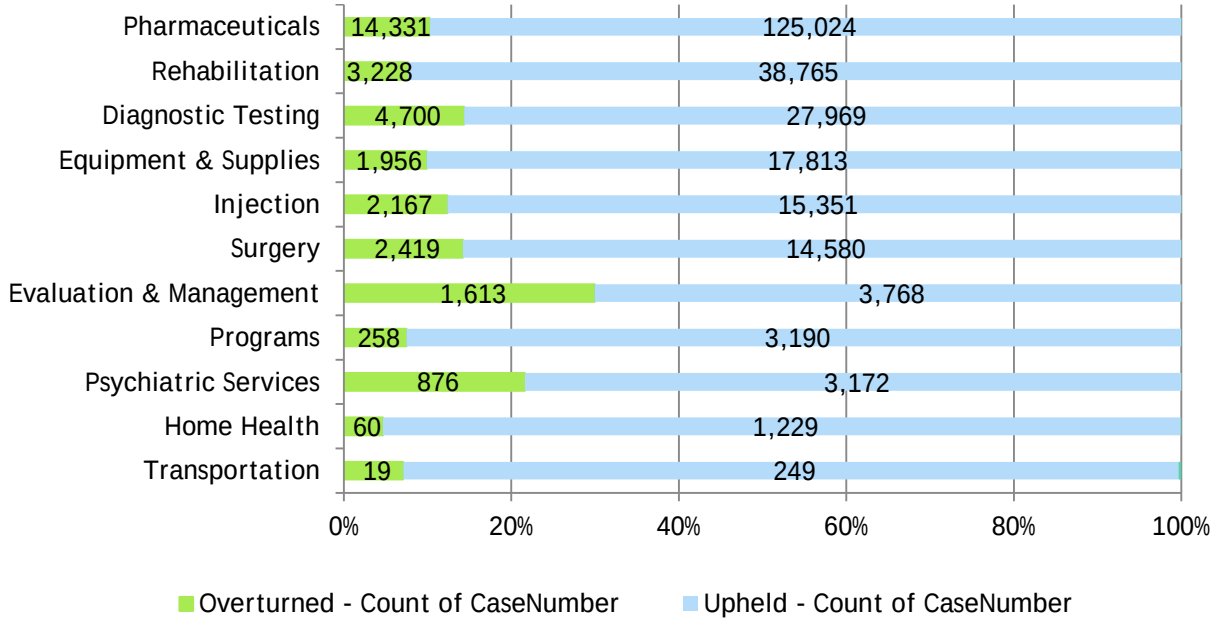
The rate of treatment disputes overturned is between 9% and 11%. Treatments considered Evaluation & Management of medical specialties have the highest overturn rate. (See Figure 12.)

Figure 12a: IMR Decisions by Treatment Category, 2014



N = 248,309 treatment requests, 2014.
Source: DWC.

Figure 12b: IMR Decisions by Treatment Category, 2015



N = 282,737 treatment requests, 2015.
Source: DWC.

Pharmaceuticals

In both of the years studied, requests for pharmaceuticals made up nearly half the IMR requests. For all drug classes combined, the IMRO overturned 8% and upheld 92% of requests for pharmaceuticals in 2014 and overturned 10% and upheld 90% of requests in 2015.

Requests for opioids comprised 29% of the pharmaceutical requests in 2014 and 32% in 2015. Opioids were followed by muscle relaxants, nonsteroidal anti-inflammatory drugs (NSAIDs), topical analgesics, and proton pump inhibitors (PPIs) in both 2014 and 2015.

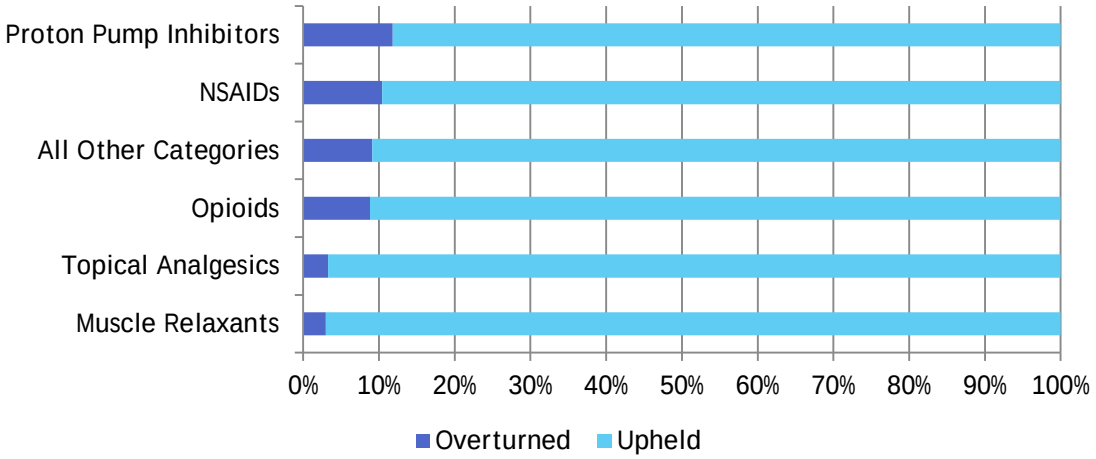
These top five drug classes comprised 71% of all pharmaceutical requests in both years, and the top ten classes comprised over 90% of pharmaceutical requests in both years (Table 1, Appendices K and L). PPIs and NSAIDs were the drug classes with the highest rate of decisions overturned (Figure 13).

Table 1: Most Requested Pharmaceuticals by Drug Class, 2014 & 2015

	2014		2015	
Drug Class	**Total**	**% of 2014 Pharmaceuticals**	**Total**	**% of 2015 Pharmaceuticals**
Opioids	33,224	29%	44,493	32%
Muscle Relaxants	14,376	13%	18,005	13%
NSAIDs	12,736	11%	17,028	12%
Topical Analgesics	11,029	10%	10,239	7%
Proton Pump Inhibitors	8,675	8%	9,466	7%
Total	**80,040**	**71%**	**99,321**	**71%**

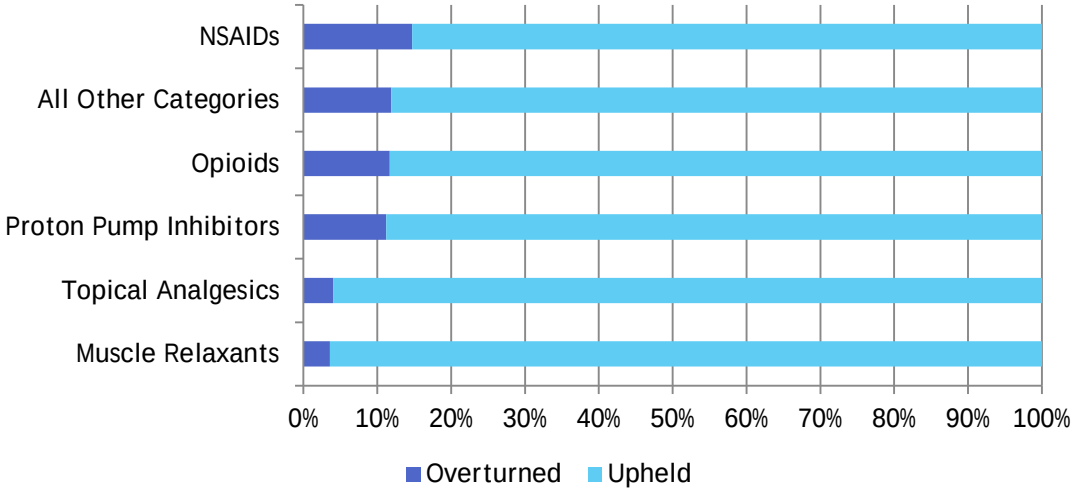
N = 113,531 pharmaceutical treatment requests, 2014; 139,355 pharmaceutical treatment requests, 2015.
Source: DWC.

Figure 13a: Ratio of Overturned vs. Upheld Treatment Requests, Pharmaceutical, 2014



N = 113,531 pharmaceutical treatment requests, 2014.
Source: DWC.

Figure 13b: Ratio of Overturned vs. Upheld Treatment Requests, Pharmaceutical, 2015



N = 139,355 pharmaceutical treatment requests, 2015.
Source: DWC.

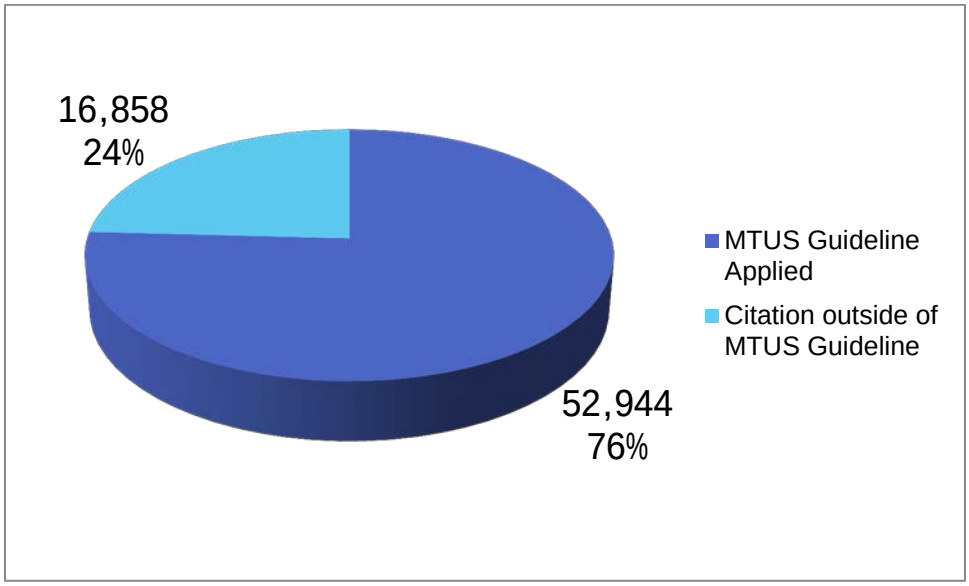
Rehabilitation Services, 2015

An analysis of 38,920 rehabilitation service requests in 2015 showed 23,885 physical therapy/occupational therapy requests, with 1,851 (8%) overturned and 22,034 (92%) upheld. Requests for acupuncture numbered 6,361, with 528 (8%) overturned and 5,833 (92%) upheld, and 5,035 requests for chiropractic, with 471(9%) overturned and 4,564 (91%) upheld (Appendix M).

IMR Decisions and Application of MTUS Guidelines

When analyzing the treatment requests for decisions issued in the fourth quarter of 2015, the expert reviewers applied the Medical Treatment Utilization Schedule Clinical/Special Topic Guidelines in three of every four evaluations. (See Figure 14.)

Figure 14: Count of IMR Reviews with MTUS Guideline Citation, October–December 2015

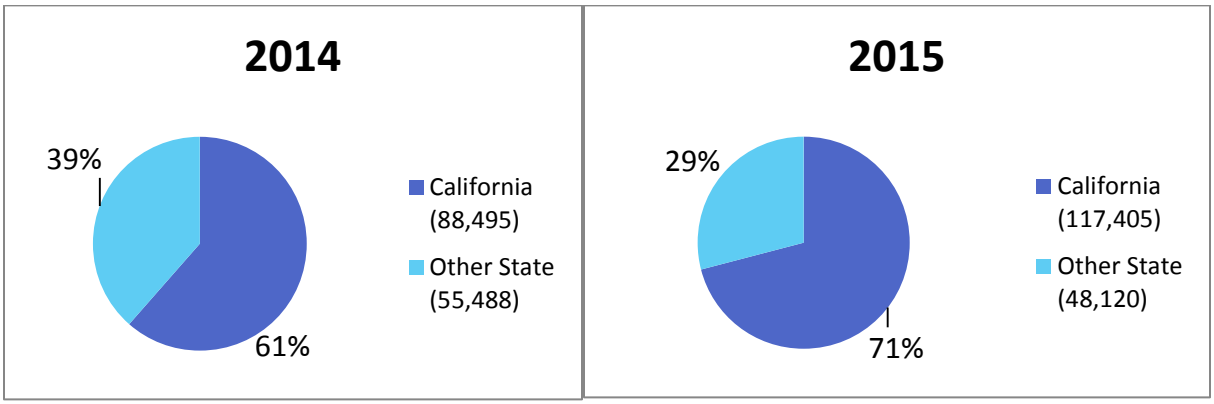


N = 69,802 treatment requests from 39,950 FDLs, fourth quarter 2015.
Source: DWC.

Physician Reviewers

Expert reviewers licensed in the State of California are responsible for the majority of IMRs. The proportion of case decisions issued by California-licensed reviewers increased from 2014 to 2015. In 2015, seven of every ten cases were reviewed by a California-licensed reviewer. (See Figure 15.)

Figure 15: IMR Expert Reviewers, California vs. Non-California License, 2014 & 2015



N = 143,983 FDLs, 2014; 165,525 FDLs, 2015.

Source: DWC.

Although the 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 necessarily have the same Board Certification as the requesting physician but is knowledgeable and qualified to review the requested treatment.

In 2014, reviewers with seven relevant specialties were selected to review 87.5% of the cases that year. In 2015, the same relevant specialties were the most often selected, and they comprised 85.0% of the cases. (See Table 2.)

Table 2: IMR Cases by Expert Reviewer Board Specialty, 2014 & 2015

Specialty	2014	2015
Physical Medicine & Rehabilitation	55,963	47,968
Occupational Medicine	22,392	25,447
Orthopedic Surgery	16,573	11,149
Pain Management	13,518	7,919
Family Practice	8,829	28,821
Internal Medicine	5,076	10,932
Emergency Medicine	3,654	8,436
Other Specialty*	17,978	24,853
Total	*143,983*	*165,525*

Source: DWC.

*See Appendix N for a full list of reviewer specialties.

Review of IMR Decisions for Quality

DWC conducts ongoing evaluation of IMR decisions to improve the quality of decision-making and to ensure optimal care for patients. This analysis focuses on FDLs containing one of the two commonly prescribed opioids, hydrocodone or oxycodone, for the study period January 2014 to May 15, 2015. The MTUS Chronic Pain Medical Treatment Guidelines adopted in 2009 were in place during the study period, as the MTUS Opioids Treatment Guidelines and updated Chronic Pain Medical Treatment Guidelines had not yet been adopted.

Fifty IMR cases were randomly selected from FDLs with a request for hydrocodone or oxycodone. Three (3) additional cases representing complaints from patients were included in the analysis, for a total of 53 IMR cases. All cases were for treatment of musculoskeletal injuries, with no cancer or terminal illness. See Appendix O.

IMR Case Review: 53 Cases of Opioid Requests

DWC analyzed the FDL, medical records, and other information available in the Maximus entellitrak® system to determine the treating physician's rationale for the continuation of opioid therapy, including documentation of:

1. Relief of pain provided by the opioid
2. Improvements in functioning, such as an increase in activities of daily living or return to work
3. Presence or absence of any significant side effects from the opioid
4. Assessment of addiction, drug diversion, or other evidence of misuse.

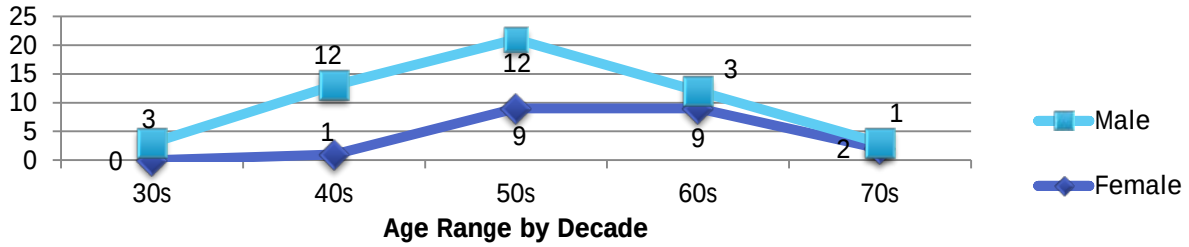
The physician's documentation was then compared to the IMR reviewer's clinical summary and rationale in the FDL.

Results

Case Demographics: Gender and Age

Of the 53 IMR cases, 32 (60%) were for males and 21 (40%) were for females. Ages ranged from 32 to 79, with age missing from one (male) IMR case medical record file. The median age of the male patients was 51, and the median age of the females was 60 (Figure 16).

Figure 16: Distribution of Age Range by Gender: 52 IMR Opioid Cases*

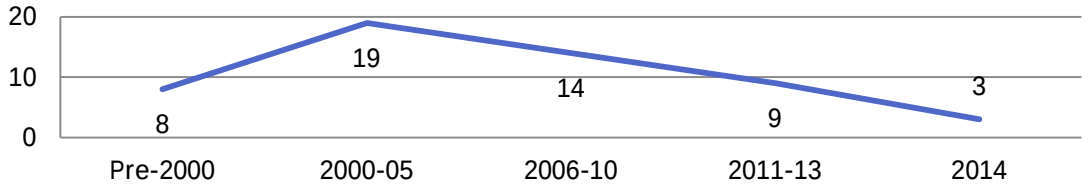


* Age not available in the medical record for one male IMR case.

Date of Injury (DOI)

The dates of injury in the sample population ranged from 1990 to 2014. The majority of cases (62%) were from 2000-2010, and 50 (94%) of the cases had dates of injury prior to 2013 (Figure 17).

Figure 17: Date of Injury: 53 IMR Opioid Cases



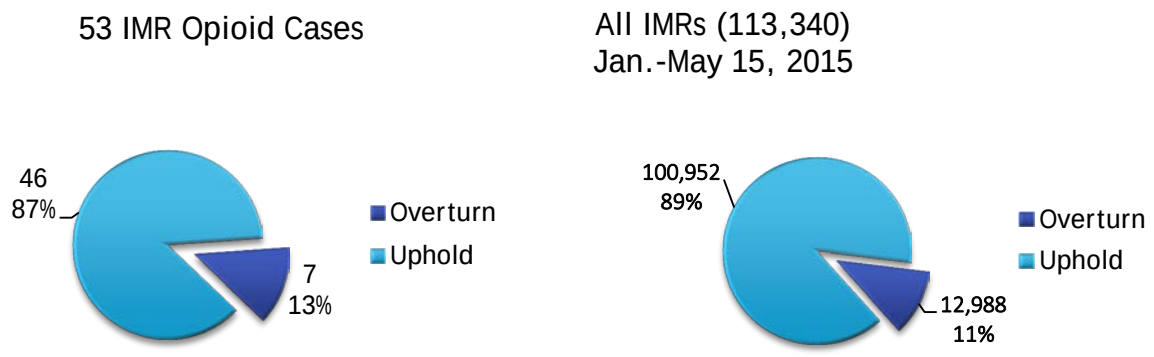
Length of Opioid Use

All patients in the study group had been on opioids long term, except one case in which the opioid was started one month prior to the request for refilling the prescription for it.

IMR Decision: Issue in Dispute

Of 53 IMR decisions on the issue of the specific opioid medication, 46 (87%) upheld the UR decision to deny the medication and 7 (13%) overturned the UR decision. These percentages are consistent with Maximus data for all IMR decisions from January to May 15, 2015 (Figure 18), the most recent data at the time of the analysis.

Figure 18: Comparison of Overturn vs. Uphold Decisions: 53 Opioid Cases Compared to All 2015 Issues in Dispute



IMR Documentation: Requesting Physician

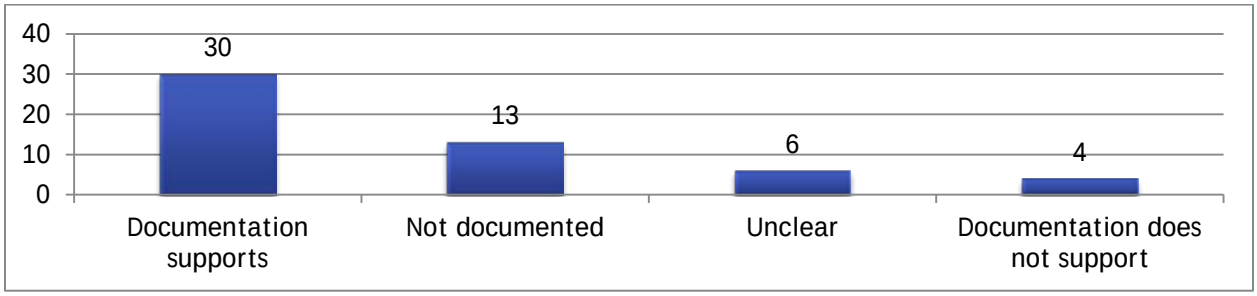
Analgesia

Did the requesting physician assess pain relief from the requested opioid?

Documentation of pain relief by the opioid medication is an important criterion for continuing opioids. This analysis looked for formal assessments of pain as well as less formal and less measurable assessments of pain relief.

The requesting (treating) physicians addressed pain relief in some manner in their chart notes 57% (30 cases) of the time; in one case, the physician clearly documented that the opioid provided no pain relief; 12 cases (23%) lacked any documentation that the physician assessed pain relief; and 10 (19%) lacked clear documentation whether the patient's pain had been relieved by the opioid (Figure 19).

Figure 19: Physician Documentation of Pain Relief: 53 IMR FDLs



The Visual Analog Scale for Pain (VAS Pain) or the Numeric Rating Scale for Pain (NRS Pain) was used by 18 treating physicians to measure pain: 6 used a single measurement without documentation of whether pain was assessed before or after medication, and 12 assessed pain with and without the opioid. All patients were on

chronic opioid therapy. Further details on the timing of the pain assessment and taking the opioid were not documented.

Activities of Daily Living

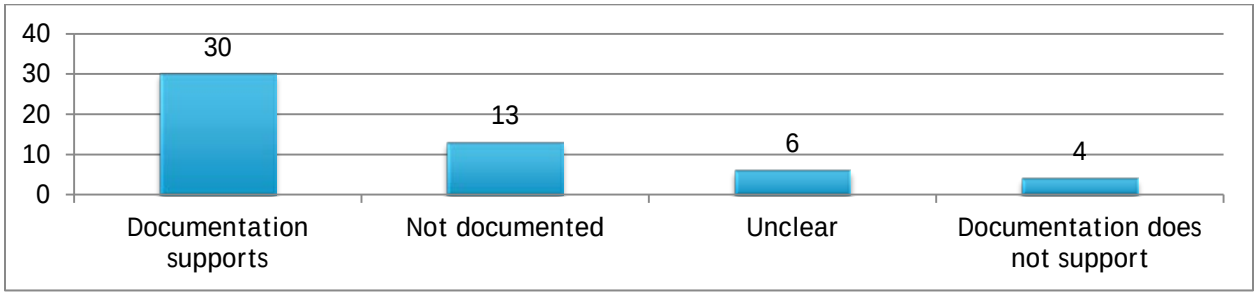
Did the treating physician document improvements in functional status?

Evidence-based guidelines recommend that treating physicians conduct ongoing monitoring of the patient's functional status while on chronic opioid therapy. This includes documentation of improved physical and psychosocial functioning as a result of the opioid. Depending on the individual, improvement in function ranges from an increase in the activities of daily living to the ability to return to work.

Disability and work status were not consistently documented in the IMR case medical records, making analysis more challenging. The majority of patients (46, 87%) were designated "permanently disabled," with 7 (13%) working in any capacity, generally modified or part-time work. The measure of functional improvement in most cases was improvement in activities of daily living.

The requesting physician documented an improvement in functional status that would support the use of opioids in 30 of the 53 (57%) of cases. In 4 cases (8%) the documentation did not show functional improvement; 13 cases (25%) had no documentation of function at all; and in 6 cases (11%) the level of functional improvement was unclear (Figure 20).

Figure 20: Physician Documentation of Functional Improvement: 53 IMRs



Adverse Side Effects

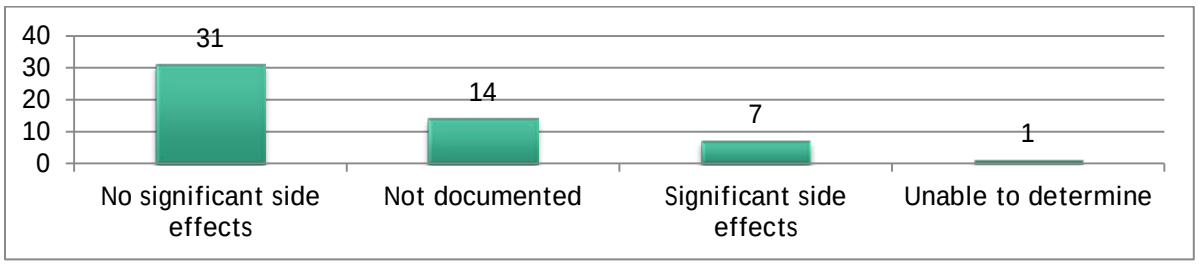
Did the requesting physician's documentation of any adverse side effects support the use of opioids?

In order to justify continued opioid therapy, guidelines recommend that the patient not have significant adverse effects from taking the medication. Common side effects include constipation, drowsiness, loss of strength, shallow respiration, dizziness, or lightheadedness.

The physician documented an absence of significant side effects in 31 (59%) cases; 7 (13%) documented the presence of significant adverse effects; 14 (26%) provided no

information about side effects; and in one case (2%) the documentation was unclear as to whether the opioid caused any side effects (Figure 21). Of the 7 patients with side effects, 5 experienced nausea, 1 had nausea and hypogonadism, and 1 had sexual dysfunction. Physicians treated side effects, especially gastrointestinal symptoms, with medication without reducing the dosage of the opioid or stopping its use.

Figure 21: Physician Documentation of Adverse Side Effects: 53 IMRs



Aberrant Drug-Taking Behaviors

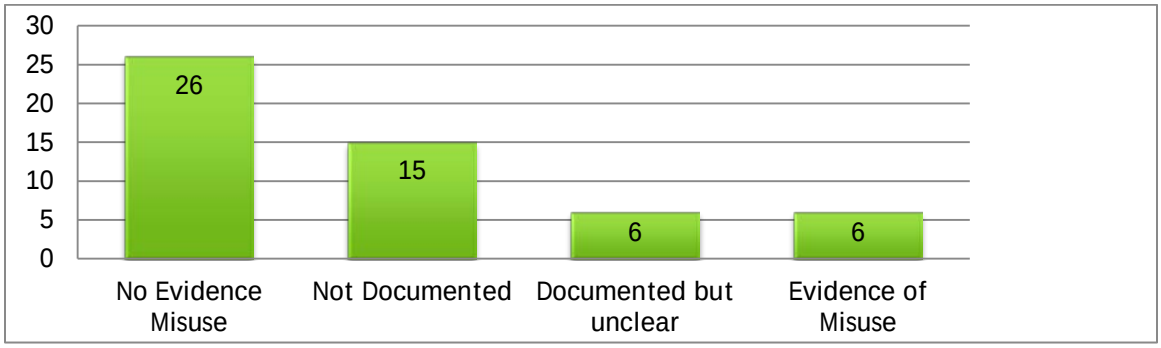
Did the requesting physician assess for and document any aberrant drug-taking behaviors?

Chronic opioid therapy requires careful patient selection, identification of risk factors for addiction, and ongoing monitoring of tolerance, dependence, and addiction. A variety of tools and strategies are used, including patient assessments and agreements, limiting the filling of prescriptions from a single pharmacy, use of the California Utilization Review and Evaluation System (CURES), monitoring of morphine equivalent dose (MED) at every visit, and periodic urine testing for drugs.

Misuse is characterized by drug-seeking or diversion behavior, for example, a drug screen that does *not* show the presence of the prescribed opioid, a CURES report showing multiple prescriptions from multiple providers and pharmacies, lost or stolen prescriptions, and emergency room visits to obtain opioids.

Evaluation of the 53 cases showed that 26 (49%) of treating physicians documented no evidence of misuse by the patient; 6 (11.5%) provided evidence of misuse; 6 (11.5%) had documentation that was unclear; and 15 (28%) had no documentation on aberrant behaviors (Figure 22).

Figure 22: Physician Documentation Absence of Aberrant Drug-Taking Behaviors: 53 IMRs



IMR Physician Reviewer Specialty and Licensing

Physical medicine and rehabilitation was the most common board specialty (26%), followed by occupational medicine (21%). Twenty-eight (53%) of the IMR physician reviewers were licensed only in California, 10 (20%) had multistate licenses (including California), and 15 (28%) were licensed only in other states (Appendix P).

IMR and Application of the MTUS

All IMR reviewers in the sample cited the 2009 MTUS Chronic Pain Medical Treatment Guidelines, Opioids, Criteria for Use of Opioids, Ongoing Management as the basis for the decision in the Rationale section of the FDL.

Gaps in Treating Physician Practices

This analysis of records in the IMR system revealed gaps between recommended practices in the MTUS and documentation in the medical records that may indicate a lack of awareness of MTUS guideline recommendations. Examples include:

- Physician does not evaluate analgesia effectively using standardized pain assessment scales, so dose escalation occurs without documentation of real improvement.
- Physician continues to prescribe opioids in the presence of inconsistent drug screen results (e.g., no prescribed opioid found in the urine).
- Patients on opioid therapy often had no documentation of improvement in function or pain relief from the opioid, yet many were on prolonged therapy with side effects or dependency.

Few physicians documented use of the CURES database to monitor diversion and abuse. Monitoring of the MED was noted in only one case and was conducted by the UR physician. The documented use of patient pain agreements was low, even among pain specialists, however; this was not a requirement in the MTUS. Documentation of pain relief and function were often missing or unclear.

Identification of gaps in professional practices provides an opportunity to give physicians feedback on the appropriate application of evidence-based medicine (EBM) in general and specifically in the management of chronic pain and the use of opioids among injured workers.

Conclusion and Future Directions

At the beginning of 2014, IMR was a relatively new program in the California workers' compensation system. The number of IMR applications received each month exceeded expectations based on initial estimates. The IMRO, Maximus Federal Services, expanded its training, outreach, and level of staffing throughout the year to meet the statutory requirements of issuing evidence-based medical decisions in a timely manner. By the end of 2015, the IMRO issued the vast majority of its decisions within the required timeframe.

The IMRO continues to receive between 19,000 and 23,000 IMR applications each month, of which nearly one-fourth are duplicate applications. An average of nearly 13,800 cases is decided each month. Each case contains an average of two disputes of treatment requests denied in UR. Pharmaceuticals make up nearly 50% of the disputed treatment requests, with opioids the most common drug class requested. The rate of treatment disputes overturned is between 9% and 11%.

Current efforts to improve the IMR process include the following.

- DWC is working to reduce the turnaround time for posting IMR decisions to the DWC web page. DWC will continue to collaborate with the IMRO in the development of technology that will allow greater efficiency and speed in the public posting process.

- Along with posting the IMR decisions, DWC developed a search tool to further promote transparency in the process, implemented in May 2016. The public is now able to search decisions by specific criteria, such as the date(s) of injury and the category of treatment requested. We intend to expand the search function's capabilities as the data are refined.

- DIR and DWC are working to increase the efficiency and timeliness of the IMR process. DWC will revise the IMR regulations to require electronic IMR applications and electronic submission of medical records to the IMRO.

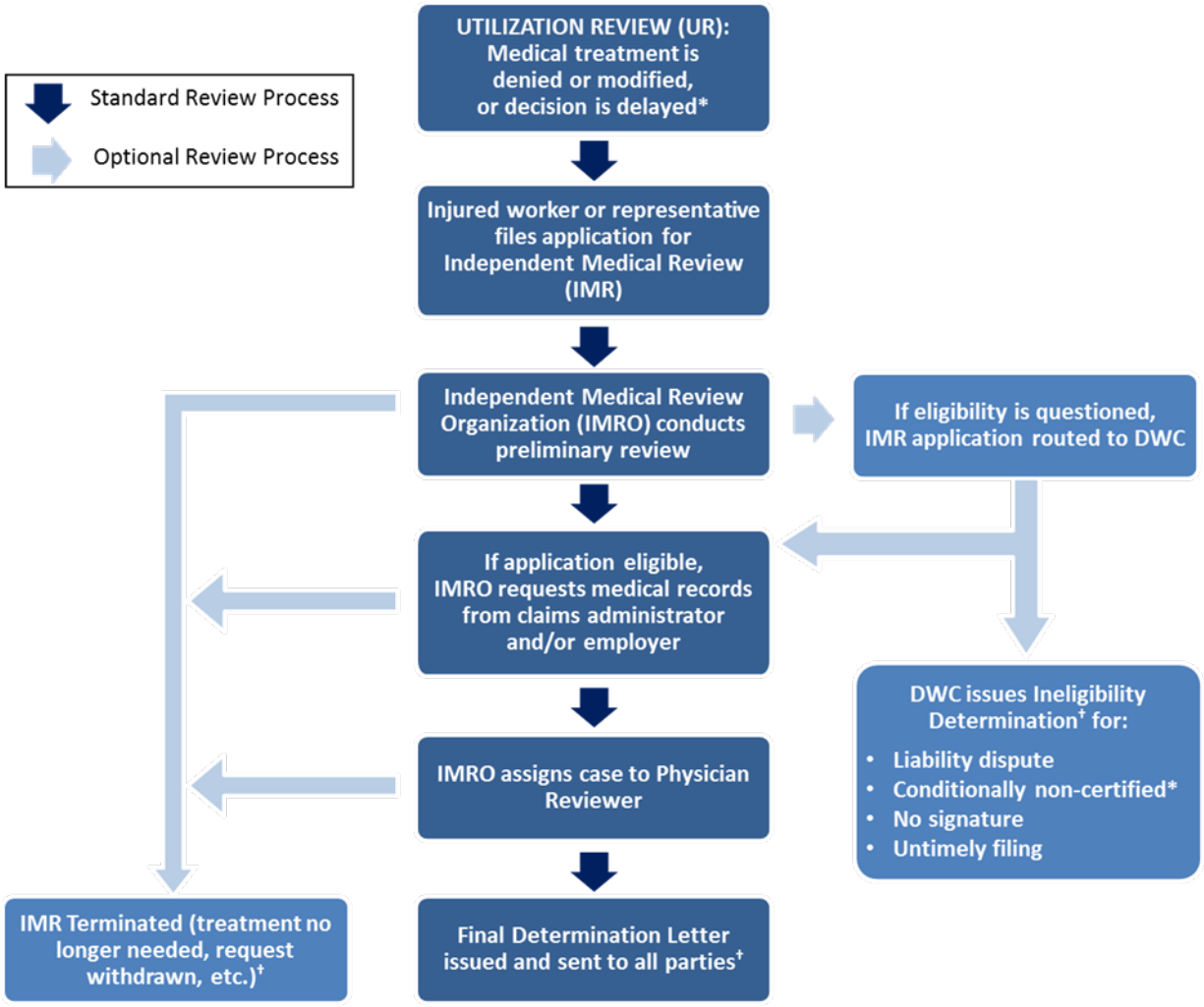
- DWC will continue to update and promote the MTUS as we reinforce the focus on EBM. The MTUS Opioids Treatment Guidelines and MTUS Chronic Pain Medical Treatment Guidelines were adopted in July 2016, with more MTUS clinical guidelines and a DWC pharmaceutical formulary planned for 2017.

- The DWC is also launching an online physician continuing education module to improve treating physicians' understanding and application of the MTUS, the processes of UR and IMR, and the clinical documentation needed to substantiate treatment requests.

- DWC will continue to analyze data collected from IMR cases as part of our efforts to ensure the quality of the program. Furthermore, DWC will continue to promote program transparency by posting all IMR decisions for the public in a timely manner, while enhancing our search feature to enhance the user experience.

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, 2014-2015

Month-Year	Number of Applications	Unique	Eligible
Jan-14	16,705	12,815	10,260
Feb-14	16,153	13,103	10,645
Mar-14	17,071	12,576	10,123
Apr-14	19,696	14,924	11,967
May-14	19,589	14,177	11,725
Jun-14	20,738	14,772	12,499
Jul-14	20,329	14,467	12,295
Aug-14	19,313	14,356	12,401
Sep-14	20,036	14,839	12,929
Oct-14	20,740	15,765	13,233
Nov-14	17,776	14,136	11,634
Dec-14	20,061	15,774	12,947
Jan-15	18,378	14,507	11,609
Feb-15	19,582	15,161	12,255
Mar-15	23,182	17,631	14,888
Apr-15	22,146	17,286	14,612
May-15	20,554	15,985	13,478
Jun-15	22,718	17,260	14,671
Jul-15	22,743	17,316	14,621
Aug-15	22,118	16,783	14,387
Sep-15	21,028	16,241	14,010
Oct-15	21,792	17,042	14,651
Nov-15	19,778	15,214	13,102
Dec-15	19,760	15,247	13,144

N = 481,986 IMR applications received in 2014 and 2015.

Source: DWC.

Appendix C: Ineligible Applications by Month, 2015

Month-Year	No Signature	No UR	No Sig and UR	Untimely	CNC**	Other	Total
Jan-15	530	1,044	72	853	261	145	2,905
Feb-15	478	1,059	93	912	228	146	2,916
Mar-15	369	1,151	56	700	336	135	2,747
Apr-15	308	1,260	45	584	332	151	2,680
May-15	340	1,100	59	562	298	150	2,509
Jun-15	377	1,155	59	490	360	155	2,596
Jul-15	398	1,165	50	524	382	180	2,699
Aug-15	313	1,047	36	444	358	202	2,400
Sep-15	248	960	44	400	389	192	2,233
Oct-15	276	1,101	39	410	398	167	2,391
Nov-15	211	934	44	348	413	161	2,111
Dec-15	184	941	40	412	373	183	2,133
Total	**4,032**	**12,917**	**637**	**6,639**	**4,128**	**1,967**	30,320

N = 30,320 IMR applications determined to be ineligible by the IMRO 2015.
Source: DWC.

*2014 data not included because reasons for ineligibility were not reliably captured during this period.

****Conditionally noncertified (CNC) 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.

***Other reasons for ineligibility include liability issues (e.g., disputed body part), alternate dispute resolution, or provider not in medical provider network.

Appendix D: 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
	Yuba
Sacramento Valley (South)	Sacramento
	Yolo
San Diego	San Diego

Appendix E: Geographic Distribution WCIS Claims & IMR Case Decisions, 2014 & 2015

2014	% of Claims, WCIS 2014	2014 Cases	% of IMR Case Decisions Issued
Los Angeles	26.8%	41,384	29.4%
Bay Area	19.9%	25,981	18.5%
Inland Empire	18.6%	28,253	20.1%
Central Valley	10.7%	14,462	10.3%
San Diego	8.1%	6,807	4.8%
Central Coast	6.5%	10,361	7.4%
Sacramento Valley	5.1%	6,094	4.3%
Eastern Sierra Foothills	1.8%	2,866	2.0%
North State-Shasta	1.4%	2,488	1.8%
N. Sacramento Valley	1.1%	1,926	1.4%
Total	100.0%	140,622	100.0%
Out of State		3,225	
Not Available		136	
N = 602,186 claims filed in 2014; 143,983 IMR cases decided in 2014.			
2015	**% of Claims, WCIS 2015**	**2015 Cases**	**% of IMR Case Decisions Issued**
Los Angeles	26.0%	42,957	26.5%
Bay Area	20.0%	32,162	19.9%
Inland Empire	18.8%	31,494	19.4%
Central Valley	10.9%	17,590	10.9%
San Diego	8.2%	8,201	5.1%
Central Coast	6.7%	12,348	7.6%
Sacramento Valley	5.0%	7,865	4.9%
Eastern Sierra Foothills	1.9%	3,558	2.2%
North State-Shasta	1.4%	3,259	2.0%
N. Sacramento Valley	1.1%	2,508	1.5%
Total	100.0%	161,942	100.0%
Out of State		3,536	
Not Available		47	
N = 591,757 claims filed in 2015; 165,525 IMR cases decided in 2015.			

Source: DWC, Workers' Compensation Information System (WCIS).

Appendix F: IMR Case-Level Results, Represented and Not Represented, 2014 & 2015

	2014			2015		
Case Decision	Represented	Not Represented	Total	Represented	Not Represented	Total
Overturned	6,788	2,279	9,067	13,780	840	14,620
Partially Overturned	6,474	2,030	8,504	11,426	595	12,021
Upheld	96,542	29,870	126,412	131,621	7,263	138,884
Total	109,804	34,179	143,983	156,827	8,698	165,525

Source: DWC

Appendix G: Year of Injury, 2015 (IMR Decisions)

Year of Injury	Total	% of Claims 2015
2015	5,220	3.2%
2014	23,988	14.5%
2013	24,096	14.6%
2012	18,357	11.1%
2011	14,096	8.5%
2010	11,013	6.7%
2009	8,840	5.3%
2008	7,056	4.3%
2007	5,968	3.6%
2006	5,025	3.0%
2005 or Older	41,866	25.3%
Total	165,525	100.0%

Source: DWC.

Appendix H: Number of Treatment Requests per IMR Case, 2014 & 2015

Number of treatment requests	2014	2015	Percentage Change
1	79,193	100,093	+20.9%
2	24,918	32,335	+22.9%
3	15,157	15,711	+3.5%
4	10,260	8,034	-27.7%
5 or more	14,455	9,352	-54.5%
Total	143,983	165,525	+13.0%

Source: DWC.

Appendix I: IMR Decisions by Treatment Category, 2014

Category	Number of IMR Decisions	Percentage Category Decisions	UR Overturned	% UR Overturned	UR Upheld	% UR Upheld
Pharmaceuticals	113,531	46%	9,151	8%	104,380	92%
Rehabilitation	39,371	16%	2,244	6%	37,127	94%
Diagnostic Testing	29,162	12%	3,580	12%	25,582	88%
Not Classified	26,289	N/A	2,311	9%	23,978	91%
DMEPOS	18,747	8%	1,249	7%	17,498	93%
Injection	16,750	7%	1,365	8%	15,385	92%
Surgery	14,996	6%	1,824	12%	13,172	88%
Evaluation & Management	5,340	2%	1,088	20%	4,252	80%
Psych Services	4,644	2%	684	15%	3,960	85%
Programs	3,856	2%	176	5%	3,680	95%
Home Health	1,620	1%	48	3%	1,572	97%
Transportation	292	<1%	15	5%	277	95%
Total	274,598	100%	23,735	9%	226,885	91%

N = 274,598 treatment requests from 143,983 FDLs in 2014.
Source: DWC.

Appendix J: IMR Decisions by Treatment Category, 2015

Category	Number of IMR Decisions	Percentage Category Decisions	UR Overturned	% UR Overturned	UR Upheld	% UR Upheld
Pharmaceuticals	139,355	49%	14,331	10%	125,024	90%
Rehabilitation	41,993	15%	3,228	8%	38,765	92%
Diagnostic Testing	32,669	12%	4,700	14%	27,969	86%
Not Classified	26,028	N/A	3,049	12%	22,979	88%
DMEPOS	19,769	7%	1,956	10%	17,813	90%
Injection	17,518	6%	2,167	12%	15,351	88%
Surgery	16,999	6%	2,419	14%	14,580	86%
Evaluation & Management	5,381	2%	1,613	30%	3,768	70%
Psych Services	4,048	1%	876	22%	3,172	78%
Programs	3,448	1%	258	7%	3,190	93%
Home Health	1,289	<1%	60	5%	1,229	95%
Transportation	268	<1%	19	7%	249	93%
Total	308,765	100%	34,676	11%	274,089	89%

N = 308,765 treatment requests from 165,525 FDLs in 2015.

Source: DWC.

Appendix K: IMR Decisions for Pharmaceutical Treatment Requests, by Drug Class, 2014

Drug Class	Number of IMR Decisions	Percentage of Pharma-ceuticals	Number of UR Overturned	Percentage of UR Overturned	Number of UR Upheld	Percentage of UR Upheld
Opioids	33,224	29%	2,921	9%	30,303	81%
Muscle Relaxants	14,376	13%	427	3%	13,949	97%
NSAIDs	12,736	11%	1,327	10%	11,409	90%
Topical Analgesics	11,029	10%	364	3%	10,665	97%
Proton Pump Inhibitors	8,675	8%	1,027	12%	7,648	88%
Anti-epilepsy drugs	5,193	5%	831	16%	4,362	84%
Topical Compounds	4,848	4%	23	<1%	4,825	>99%
Benzodiazepine	4,365	4%	63	1%	4,302	99%
Antidepressant	4,052	4%	914	23%	3,138	77%
Sedative-hypnotics	3,662	3%	111	3%	3,551	97%
Nutritional Products	2,705	2%	66	2%	2,639	98%
Antiemetic	1,855	2%	60	3%	1,795	97%
GI Agents	1,391	1%	371	27%	1,020	73%
Impotence Agents	972	1%	205	21%	767	79%
Adrenal Cortical Steroids	880	1%	95	11%	785	89%
Histamine 2	643	1%	44	7%	599	93%
Antimigraine Agents	475	0%	45	9%	430	91%
Antihistamine	452	0%	21	5%	431	95%
Stimulants	396	0%	18	5%	378	95%
Anti-infectives	386	0%	33	9%	353	91%
Atypical Antipsychotic	342	0%	53	15%	289	85%
Androgens & Anabolic Steroids	196	0%	23	12%	173	88%
Antihypertensive	184	0%	30	16%	154	84%
Anti-anxiety	117	0%	13	11%	104	89%
Beta-blocker	110	0%	23	21%	87	79%
Barbiturates	90	0%	0	0%	90	100%
Calcium Channel Blocker	40	0%	13	33%	27	67%
Asthma	40	0%	3	8%	37	92%
Antidiabetics	36	0%	12	33%	24	67%
Statin	28	0%	7	25%	21	75%
Alpha-blocker	23	0%	8	35%	15	65%
Opioid Antagonist	10	0%	0	0%	10	100%
Total	113,531	100%	9,151	8%	104,380	92%

Source: DWC.

Appendix L: IMR Decisions for Pharmaceutical Treatment Requests, by Drug Class, 2015

Drug Class	Number of IMR Decisions	Percentage of Pharma-ceuticals	Number of UR Overturned	Percentage of UR Overturned	Number of UR Upheld	Percentage of UR Upheld
Opioids	44,493	32%	5,189	12%	39,304	88%
Muscle Relaxants	18,005	13%	642	4%	17,363	96%
NSAIDs	17,028	12%	2,500	15%	14,528	85%
Topical Analgesics	10,239	7%	408	4%	9,831	96%
Proton Pump Inhibitors	9,466	7%	1,061	11%	8,405	89%
Anti-epilepsy drugs	7,666	6%	1,409	18%	6,257	82%
Topical Compounds	5,394	4%	23	<1%	5,371	>99%
Antidepressants	5,197	4%	1,376	26%	3,821	74%
Benzodiazepine	5,149	4%	118	2%	5,031	98%
Sedative-hypnotics	4,907	4%	133	3%	4,774	97%
Nutritional Products	1,944	1%	59	3%	1,885	97%
GI Agents	1,573	1%	386	25%	1,187	75%
Antiemetic	1,521	1%	69	5%	1,452	95%
Impotence Agents	1,230	1%	314	26%	916	74%
Adrenal Cortical Steroids	1,191	1%	165	14%	1,026	86%
Histamine 2	835	1%	58	7%	777	93%
Antihistamine	597	0%	32	5%	565	95%
Atypical Antipsychotic	552	0%	77	14%	475	86%
Anti-infectives	506	0%	36	7%	470	93%
Antimigraine Agent	442	0%	68	15%	374	85%
Stimulants	325	0%	6	2%	319	98%
Antihypertensive	267	0%	55	21%	212	79%
Androgens & Anabolic Steroids	164	0%	22	13%	142	87%
Anti-Anxiety	153	0%	35	23%	118	77%
Beta-blocker	112	0%	38	34%	74	66%
Barbiturates	100	0%	0	0%	100	100%
Asthma Medications	89	0%	4	4%	85	96%
Opioid Antagonist	70	0%	3	4%	67	96%
Antidiabetics	50	0%	19	38%	31	62%
Calcium Channel Blocker	48	0%	15	31%	33	69%
Alpha-blocker	22	0%	6	27%	16	73%
Statin	20	0%	5	25%	15	75%
Total	139,355	100%	14,331	10%	125,024	90%

Source: DWC.

Appendix M: IMR Decisions for Rehabilitation Services, by Subcategory, 2015

Rehabilitation	2015				
	Total	Overturn	% Overturned	Upheld	% Upheld
Physical Therapy/ Occupational Therapy	23,885	1,851	8%	22,034	92%
Acupuncture	6,361	528	8%	5,833	92%
Chiropractic	5,035	471	9%	4,564	91%
Other Therapies	3,639	215	6%	3,424	94%
Total	38,920	3,065	8%	35,855	92%

N = 308,765 treatment requests from 165,525 FDLs total, with 38,920 requests for rehabilitation services after grooming 41,993 services classified as "Rehabilitation"; see list below.

Other Therapies

- Functional Capacity Test
- Hand Therapy
- Massage Therapy
- Shockwave Therapy
- Speech Therapy

Appendix N: Expert Reviewer Relevant Specialty

Expert Reviewer's Relevant Specialty	CY2014	CY2015
Physical Medicine & Rehabilitation	55,963	47,968
Family Practice	8,829	28,821
Occupational Medicine	22,392	25,447
Orthopedic Surgery	16,573	11,149
Internal Medicine	5,076	10,932
Emergency Medicine	3,654	8,436
Pain Management	13,518	7,919
Neuromuscular Medicine	1,979	6,326
Oriental Medicine	2,737	3,774
Rheumatology	351	2,143
Psychologist	2,071	1,841
Chiropractic	2,126	1,753
Anesthesiology	1,307	1,337
Hospice & Palliative Medicine	175	1,132
Neurological Surgery	715	1,098
Psychiatry	1,023	1,062
Geriatric Medicine	768	987
Pulmonary Disease	309	936
Sports Medicine	274	466
Plastic Surgery	210	436
Dentist	227	288
Thoracic Surgery	1	254
Addiction Psychiatry	151	241
Hand Surgery	136	212
Podiatrist	172	151
Nephrology	332	112
Surgery	401	83
Neurology	338	74
Ophthalmology	199	51
Otolaryngology	36	38
Urology	6	15
Dermatology	20	11
Allergy and Immunology	10	8
Infectious Disease	0	8
Medical Oncology	6	6
Pediatrics	10	3
Cardiovascular Disease	0	2

Colon and Rectal Surgery	3	2
General Vascular Surgery	11	2
Gastroenterology	6	1
Child and Adolescent Psychiatry	120	0
Critical Care Medicine	1,561	0
Diagnostic Radiology	4	0
Interventional Cardiology	2	0
Medical Toxicology	38	0
Neuroradiology	11	0
Oncology	9	0
Podiatric Surgery	49	0
Radiology	27	0
Not Listed	47	0
Total	143,983	165,525

Appendix O: 53 IMR Cases by FDL Year, Method of Selection, and Opioids

	FDL Issued 2014		FDL Issued 2015	
Method of selection	**Random**	**Complaint**	**Random**	**Complaint**
Drug				
Hydrocodone	19	0	25	0
Oxycodone	6	1	0	0
Other Opioid	0	0	0	2
Total	25	1	25	2

Appendix P: IMR Reviewer Specialty and State of Licensing: 53 IMR Opioid Cases

IMR Reviewer Primary Specialty	*N* All States	% All States	California	% with CA License
Physical Medicine & Rehabilitation	15	28%	12	
Occupational Medicine	11	21%	5	
Pain Management	6	11%	1	
Neurology	5	9%	4	
Internal Medicine	4	8%	3	
Other	12	23%	7	
Total	53	100%	32	60%