

# **2014 Independent Medical Review (IMR) Report: Analysis of 2013 Data**

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## EXECUTIVE SUMMARY

The California Division of Workers' Compensation (DWC) Independent Medical Review (IMR) Program was successfully implemented on January 1, 2013, within a very short time following the signing of the enabling legislation, Senate Bill 863, by Governor Brown in September 2012. Through an efficient process using medical expertise to arrive at consistent, evidence-based decisions, the program achieved its goal of providing timely resolution of disputes regarding the medical necessity of treatment for injured workers. The IMR process replaced the previous judicial process, often cumbersome and costly. This first annual IMR Report describes the progress made to date and provides an analysis of the data gathered during the first year of the program's existence. Future analyses will build on this initial report.

Independent medical review is available to workers who receive a utilization review (UR) decision that a physician's treatment request must be denied or modified on the basis of medical necessity. To request IMR, the worker must submit a signed IMR application along with a copy of the UR decision within 30 days of the denial or modification. The IMR application and supporting material is submitted to the Independent Medical Review Organization (IMRO), Maximus Federal Services, chosen by DWC and allowed by statute. Decisions are issued by physician reviewers selected by the IMRO and matched by specialty to the nature of the medical dispute.

In 2013, 73,282 IMR cases were opened. A total of 3,723 IMR Final Determination Letters (FDLs) were issued by December 31, 2013, each containing on average two disputed medical treatments. Physician reviewers upheld 84% of UR decisions in 2013. More than 1,200 IMR decisions overturned UR decisions, resulting in approval of medically necessary care for more than 800 workers. In contrast, the Department of Managed Health Care (DMHC) IMR program for group health, on which the DWC program was modeled, reviewed only 7,483 medical necessity cases over 10 years (2001-2010), overturning between 36% and 50%.<sup>1</sup>

A much higher volume of IMR applications than initially anticipated posed challenges to issuing timely FDLs in 2013. Initially, IMR was available to resolve medical treatment disputes only for new injuries. Beginning in July 2013, IMR was extended to past injuries as well. As a result, the program experienced a considerable increase in the number of applications starting in the latter half of its first year. Nearly one half of closed IMR cases in 2013 were opened by workers whose injuries occurred before 2010.

Delays caused by the unexpectedly high volume of IMR applications were compounded by a paper process and lack of familiarity with proper practices by all parties, resulting in large numbers of incomplete, untimely, and duplicate applications. Consequently, the timeline to issue an FDL exceeded the regulatory limit from September 2013 through September 2014.

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<sup>1</sup> California Healthcare Foundation. Ten Years of California's Independent Medical Review Process. 2012.

In response to these challenges, DWC worked with the IMRO to hire and train additional staff, increase logistical support, streamline protocols, and automate processes. As a result of these considerable efforts and process enhancements, IMR decisions were being issued within the required timeframe by October 2014. In addition, the costs of IMR were reduced by 25% beginning in April 2014, with additional reduced costs for IMR applications involving pharmaceuticals and for terminated cases.

Other notable findings for 2013 include the fact that more than half of workers' compensation claims and IMR applications, measured by volume of claims filed with the DWC, arose from treatment requests managed by the top 10 UR claims administrators. Nearly a third of all workers' compensation claims, as well as a third of IMR applications, originated from the Los Angeles area (based on worker zip code).

IMR neither requires nor precludes legal representation for workers. In 2013, an IMR application filed by an unrepresented injured worker was more likely than one filed by a represented worker to result in an overturned UR decision, but it was also more likely to be declared ineligible, suggesting that workers found eligibility requirements confusing.

Pharmaceuticals comprised nearly half of IMR disputed treatments. UR decisions for this treatment category were frequently upheld. The most commonly requested non-injected pharmaceuticals were opioids. The most commonly requested injected pharmaceuticals were steroids. IMR decisions for steroid injections were more likely to overturn UR decisions than those for other injection types.

Treatment categories for which UR decisions were most likely to be overturned were evaluation and management (typically a request for evaluation by another physician), diagnostic tests, and radiological tests. Fewer than one in ten IMR disputed treatments was surgical. In this treatment category, non-arthroscopic surgery appeared more often than arthroscopic surgery. Spinal surgery was the most common surgical treatment.

In 2013, most independent physician reviewers were licensed in California. Together, specialists in physical medicine and rehabilitation and specialists in occupational medicine issued the majority of IMR decisions. Physician reviewers appeared to be appropriately matched to the nature of the disputed medical treatment.

IMR decisions were primarily based on the DWC Medical Treatment Utilization Schedule (MTUS) or other evidence-based treatment guidelines. Clinical rationales for IMR decisions that were reviewed in detail were sound. Our analysis suggests that most UR decisions denying or modifying requested treatments also are evidence based, with the majority based on the MTUS. The physician reviewer was more likely to overturn the UR decision if it did not adhere to the MTUS. The physician reviewer was most likely to uphold the UR decision if the disputed treatment was not consistent with evidence-based treatment guidelines or did not contain documentation adequate to justify the claim of medical necessity.

## **FUTURE DIRECTIONS**

- DWC will work with the IMRO to expand automation, including developing an electronic application process. Automation will greatly enhance the ability of IMR to provide injured workers timely decisions on medical disputes.
- DWC will educate physicians regarding the practice of evidence-based medicine, especially by applying the MTUS and by cultivating relationships with established communication channels such as medical professional organizations.
- DWC, in partnership with the IMRO and external partners, will continuously review the content, quality, and consistency of IMR decisions. Findings will be used to enhance and update both the IMR process and MTUS guidelines.
- DWC will maintain IMR Program transparency. For example, DWC will post FDLs in a user-friendly searchable format on its website; collect data on medical care provided through the workers' compensation system, including the medical dispute resolution process; and continuously analyze and present findings. Annual reports will be produced in a timely manner.
- DWC will partner with external organizations to analyze data from IMR and other sources and to quantify IMR's impact in providing timely and effective care to workers, reducing disability, facilitating return to work, and reducing systemic costs.

## INTRODUCTION

One of the most significant changes mandated by the workers' compensation reform of 2012, Senate Bill (SB) 863, was adoption of an independent medical review (IMR) process to resolve disputes over the appropriateness of medical treatment recommended by physicians for injured workers but rejected by claims administrators in utilization review (UR). Under SB 863, IMR is modeled [on a similar process used by the Department of Managed Health Care \(DMHC\)](#) in the group health setting (in contrast to the workers' compensation system) under the Knox-Keene Act.

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 overturned through IMR. The IMR process requires that appropriately qualified independent medical professionals determine the medical necessity of recommended treatment. Prior to the DWC IMR program, medical treatment disputes were resolved in a judicial process that was often cumbersome and costly. Under the previous system, qualified medical examiners (QMEs) or agreed medical examiners opined on the medical necessity of treatments, and judges (rather than medical professionals) issued final decisions. The review process stretched to several months, and decisions were inconsistent and not based on medical evidence. Under the authority of the Division of Workers' Compensation (DWC), the new IMR process requires that independent medical professionals determine the medical necessity of disputed treatments in a timely manner.

The cost of IMR is borne by employers through direct payment to the independent medical review organization (IMRO) that oversees the process. To ensure the new program's timely implementation, DWC was permitted by statute to contract with the same IMRO used by DMHC. DWC designated Maximus Federal Services (MFS) as the sole IMRO from January 1, 2013 through December 31, 2014.

On January 1, 2013, IMR became available under DWC on a limited basis for workers injured on or after that date. Beginning July 1, 2013, the new process was available for all dates of injury. [Final IMR regulations](#) were issued on February 12, 2014.

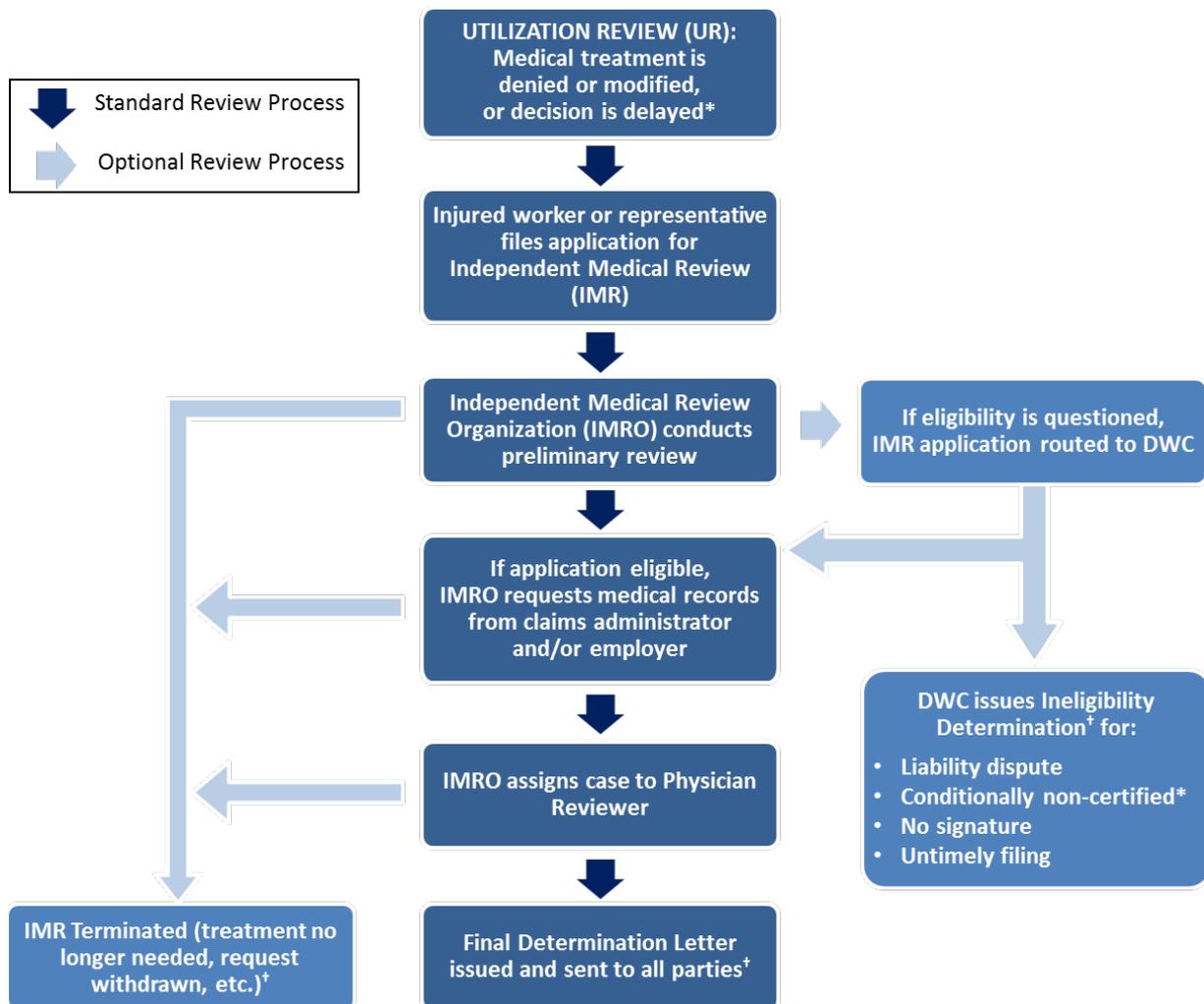
To dispute UR denial or modification on one or more requested treatments, an injured worker or legal representative must, within 30 days, submit a signed IMR application completed (except for the signature) by the UR claims administrator, along with a copy of the UR decision. In 2013-2014, the IMR program operated entirely in paper; the option for submitting documents electronically was unavailable.

Once the worker has submitted an IMR application, three outcomes are possible. DWC deems an application ineligible for IMR if it is unsigned, not accompanied by the UR decision, or untimely, or if the denial of care was not based on medical necessity (e.g., if the cause was disputed liability). An IMR case may be terminated if the disputed treatment is no longer necessary because, for example, it has been approved by the claims administrator since the IMR application was filed.

On receipt of an eligible IMR application, the IMRO requests medical records from the UR claims administrator. Workers and their representatives, such as attorneys and physicians, may also submit relevant medical records. The IMRO then assigns the case to an expert physician reviewer from a network of independent medical professionals. Physician reviewers are matched by the IMRO to the nature of the injury and the disputed treatment. Their names remain confidential in all communications outside the IMRO.

A 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 layperson’s terms. Redacted copies of FDLs are available on [DWC’s web site](#). The IMR process, from application filing to closure, is depicted schematically in Figure 1.

**Figure 1. 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

## METHODOLOGY

This report contains an overview of IMR since its inception on January 1, 2013, as well as analysis of the data on IMR applications submitted and FDLs issued by December 31, 2013. IMR applications for which FDLs were issued after December 31, 2013 are not included in this report.

Each IMR application disputes one or more UR treatment decisions. The physician reviewer evaluates each disputed treatment using appropriate treatment guidelines and either upholds the UR decision modifying or denying treatment or overturns the decision. The UR's final determination is considered upheld if all treatment decisions are upheld, overturned if all treatment decisions are overturned, or partially overturned if some, but not all treatments are overturned.

Data sources used for this analysis include monthly counts of IMR applications and closed cases through August 2014 for 2013 cases, and FDLs that were issued in 2013. Data from FDLs were manually abstracted by DWC and entered into an Access database. Data elements obtained from IMR applications and FDLs include the IMR case number; the dates of injury and IMR filing; the disputed medical treatments; body parts relevant to those treatments (when applicable); the physician reviewer's specialty; the reviewer's decision on each disputed treatment; and treatment guidelines relied upon by the claims administrator and/or the physician reviewer to provide a rationale for the decision. Data were cleaned to eliminate duplicates, inaccuracies, and missing values; categorized; and analyzed using Microsoft Access.

Geographic regions were determined from the zip code of the IMR application as listed on 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 A](#)).

DWC categorized disputed treatments in ten major groups. If the disputed treatment did not fit into one of these groups, it was categorized as miscellaneous. Disputed treatments were not categorized by numeric code (such as Current Procedural Terminology or International Classification of Diseases) because codes were not available.

Disputed treatments were categorized as pharmaceutical if they involved the use of medication, regardless of method of delivery; medications administered orally, topically, and by injection were all considered pharmaceuticals. Pharmaceutical treatments were further grouped as either injection or non-injection, and injections were sub-classified as Botox, steroids, miscellaneous block, and other. Non-injection pharmaceuticals were categorized based on their classification on the Drugs.com website. If no drug class was available on Drugs.com, the pharmaceutical was recorded as not classified. Three categories of oral medications (narcotic analgesics, narcotic analgesic combinations, and miscellaneous narcotics) were combined into the category "opioids." Pharmaceuticals were classified as compound medications if the original treatment

request listed the drug as a compounded medication, or if the medication was identified in other IMR decisions as compounded.

Statewide data on workers' compensation claims obtained from the Workers' Compensation Information System (WCIS) (available at [http://www.dir.ca.gov/dwc/wcis/WCIS\\_Reports.html](http://www.dir.ca.gov/dwc/wcis/WCIS_Reports.html)) were compared to IMR data. Using the WCIS number required on the IMR application form, analysts attempted to match workers who filed for IMR with claims in the WCIS.

To determine the quality of 2013 IMR decisions, a review was conducted of 50 FDLs selected by IMR number using random number generator software after filtering for physician reviewer's specialty. The distribution of reviewer specialties reflected in the FDLs reviewed roughly reflected the overall distribution in the database, but less common reviewer specialties were also included for analysis. Each FDL was evaluated on its own merits, so additional documents, such as medical records and UR decisions, were not reviewed.

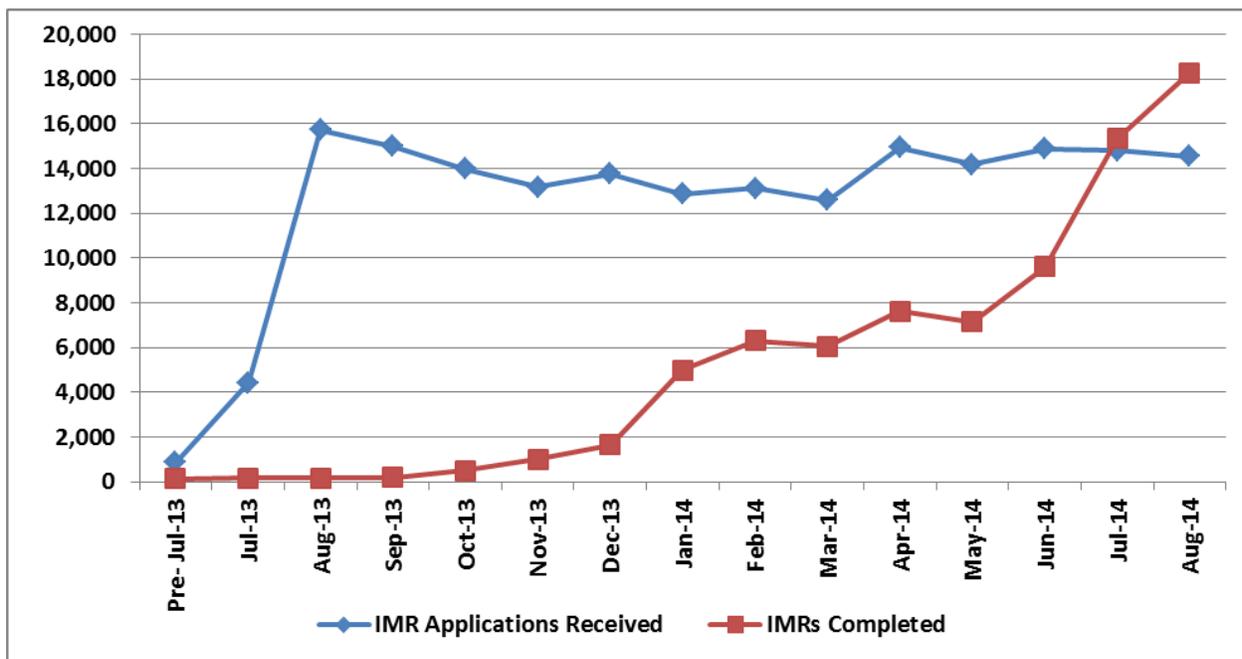
The qualitative assessment of FDLs addressed the following questions:

- How thorough was the assessment of the clinical presentation; were records sufficiently reviewed?
- Did the rationale apply to the relevant clinical findings?
- Were medical evidence and/or cited treatment guidelines relevant and sufficient?
- Were cited treatment guidelines the best available and appropriate in light of the hierarchy of evidence?
- Was the decision sufficiently supported by the clinical summary, rationale, and guidelines cited?
- If the treatment was not approved, were individual characteristics of the injured employee and prognosis considered, as well as treatment benefits and harms?

## RESULTS

From January 1, 2013 through June 30, 2013, IMR was available only for 2013 injuries. During this time, the volume of IMR applications remained low and steady. On July 1, 2013, IMR became available for all dates of injury. As a result, the program experienced a considerable increase in the number of applications starting in the latter half of its first year (Figure 2). The volume of IMR applications in late 2013 far exceeded that expected at the outset, and the high volume continued through 2014.

**Figure 2. IMR Applications Received and Cases Closed, January 1, 2013 – August 31, 2014\***



\* Over this period, 188,884 IMR applications were received, and 79,111 cases were closed.

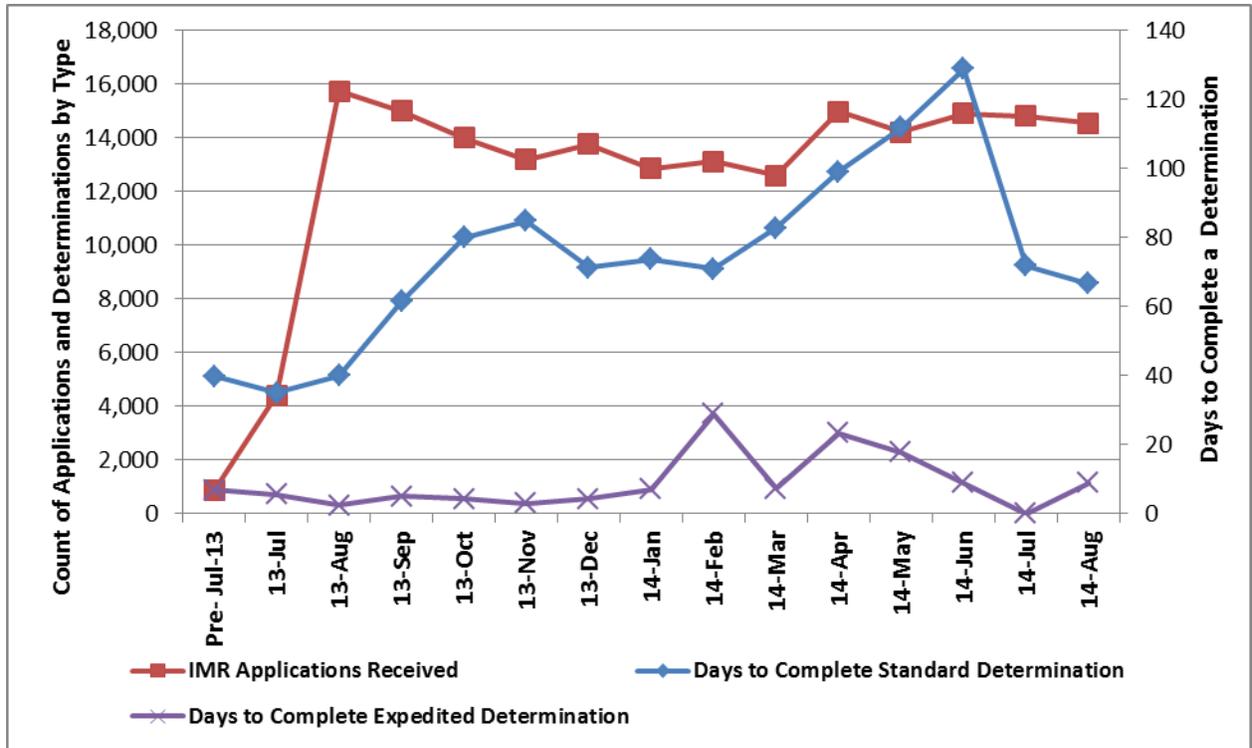
### The IMR Timeline

Many 2013 IMR applications were ineligible because they were not signed by the injured workers and/or lacked copies of the UR decision, or because of other defects. Applications that were not submitted within 30 days of the UR decision were also declared ineligible. However, because the IMR process was new, if an incomplete application was submitted in a timely manner, DWC expended considerable effort to help applicants by contacting submitting parties by email, telephone, and/or letter to obtain missing information.

According to [regulation](#), a standard IMR application must be completed within 30 days from receipt of records and an expedited application within 72 hours. The unexpectedly high volume of IMR applications and large numbers of incomplete and duplicate applications slowed the review process considerably. Recognizing the problem, DWC

worked with the IMRO to (1) hire and train additional staff, including physician reviewers; (2) increase logistical support, such as fax lines; (3) streamline protocols (e.g., for determining eligibility); and (4) automate processes such as data entry and document generation. As a result of these considerable efforts and process enhancements, IMR decisions were being issued within the required timeframe by October 2014.

**Figure 3. Average Number of Days to Close Standard and Expedited IMR Cases, January 1, 2013 – August 31, 2014**

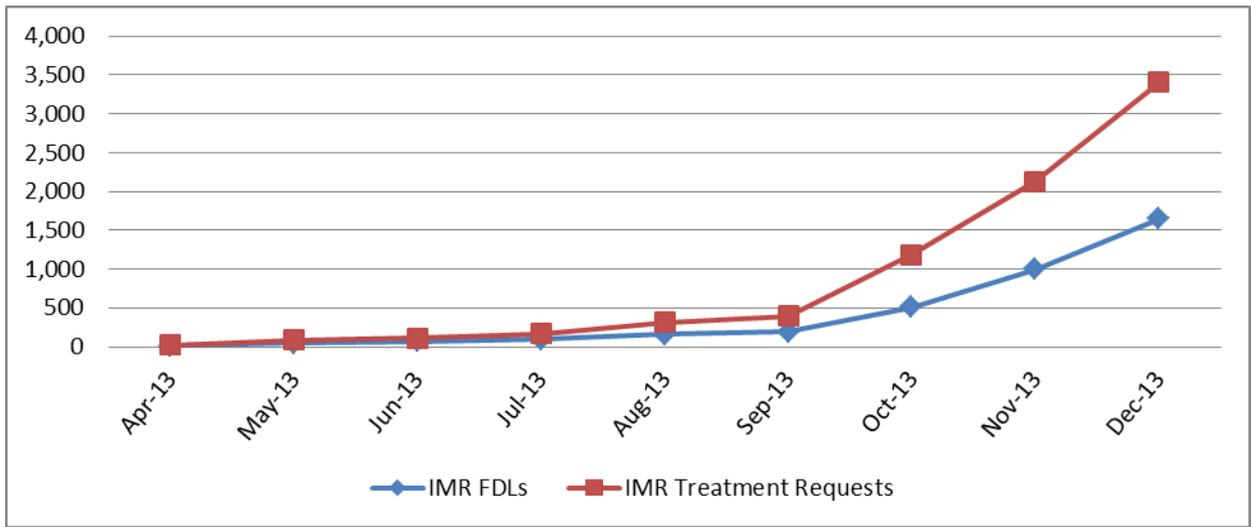


### Analysis of 2013 IMR Data

This report presents an analysis of data gathered from IMR applications and corresponding Final Determination Letters (FDLs) issued by December 31, 2013.

On average, there were two disputed treatments per FDL. Figure 4 shows a steady increase in the number of FDLs issued and the average number of disputed treatments addressed.

**Figure 4. IMR Applications and FDLs by Month\***



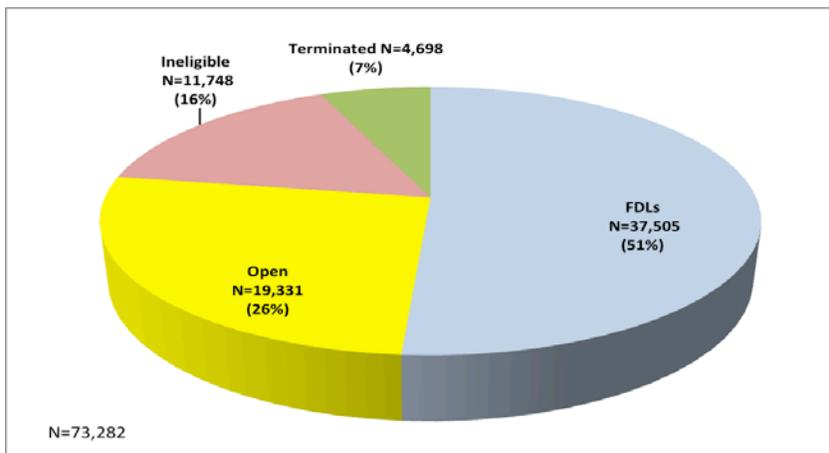
\* IMR disputed treatments: 7,805; FDLs: 3,723.

### Closed Cases

Closed cases include those that have been determined to be ineligible, those terminated (because treatment was authorized, the case was settled, or the IMR was withdrawn by the worker or another eligible party for a different reason), and for which an FDL has been issued.

In 2013, the IMR program received 73,282 applications, of which 53,951 (74%) were closed by August 13, 2014. Nearly one IMR out of four (22%) was determined to be ineligible (Figure 5).

**Figure 5. Final Status of 2013 IMR Cases as of August 31, 2014**

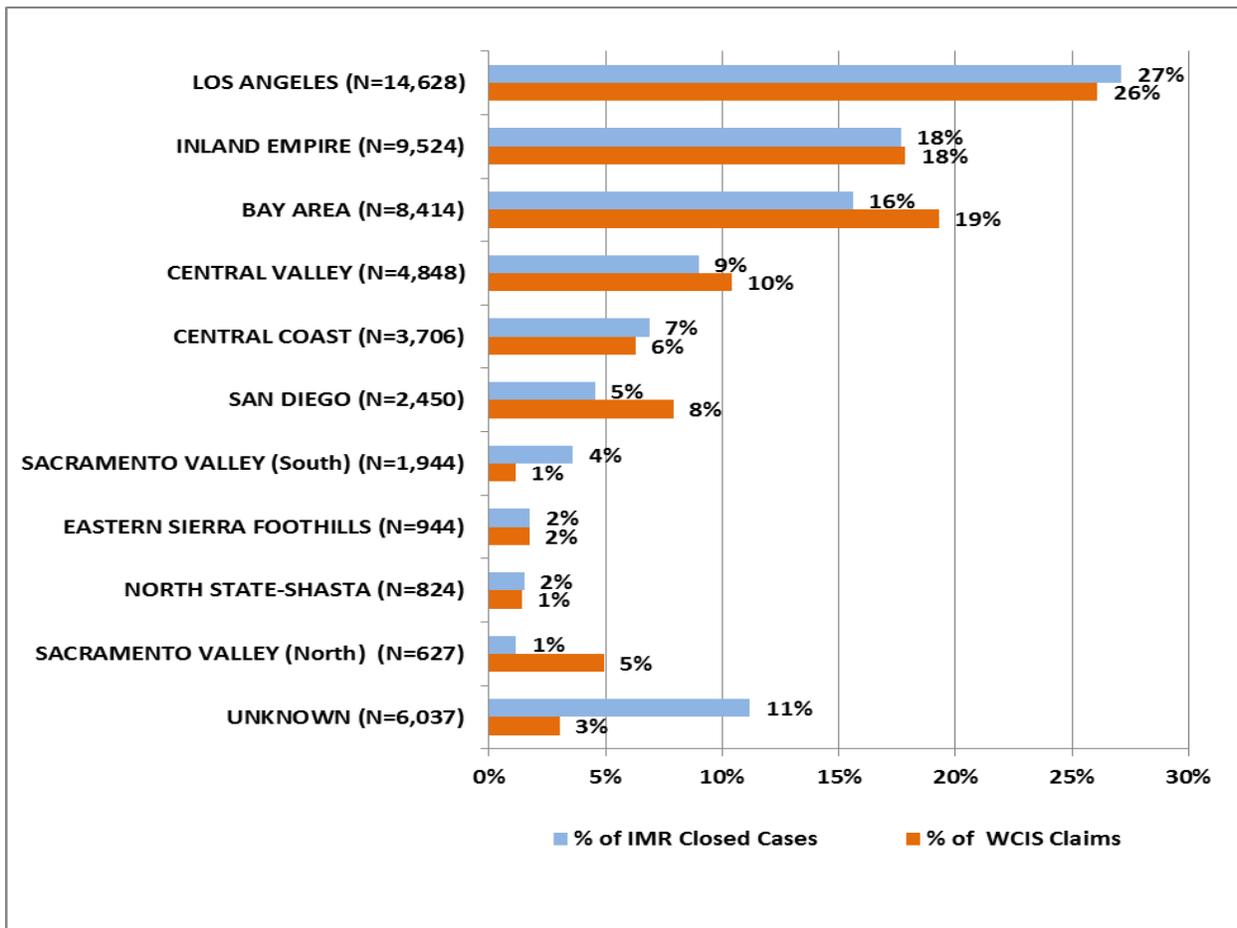


## Who Files for IMR?

At the time of analysis, demographic information on workers filing for IMR was limited to geographic region and whether the worker was represented by another person.

Geographic variation in closed IMR cases was found to be comparable to all workers' compensation claims filed in 2013 and reported to the DWC Workers' Compensation System (WCIS). Over a quarter of IMR applications (27%) were filed by injured workers from the Los Angeles region, where 26% of all workers' compensation claims were also filed (Figure 6, [Appendix C](#)). Nearly one in five IMR applications as well as workers' compensation claims (18%) originated in the Inland Empire. In comparison to workers' compensation claims, proportionately fewer closed IMR cases were from the Bay Area, San Diego, or Sacramento Valley.

**Figure 6. Geographic Regions of Injured Workers in Closed IMR Cases and Claim Files in DWC's Workers' Compensation Information System (WCIS)\***

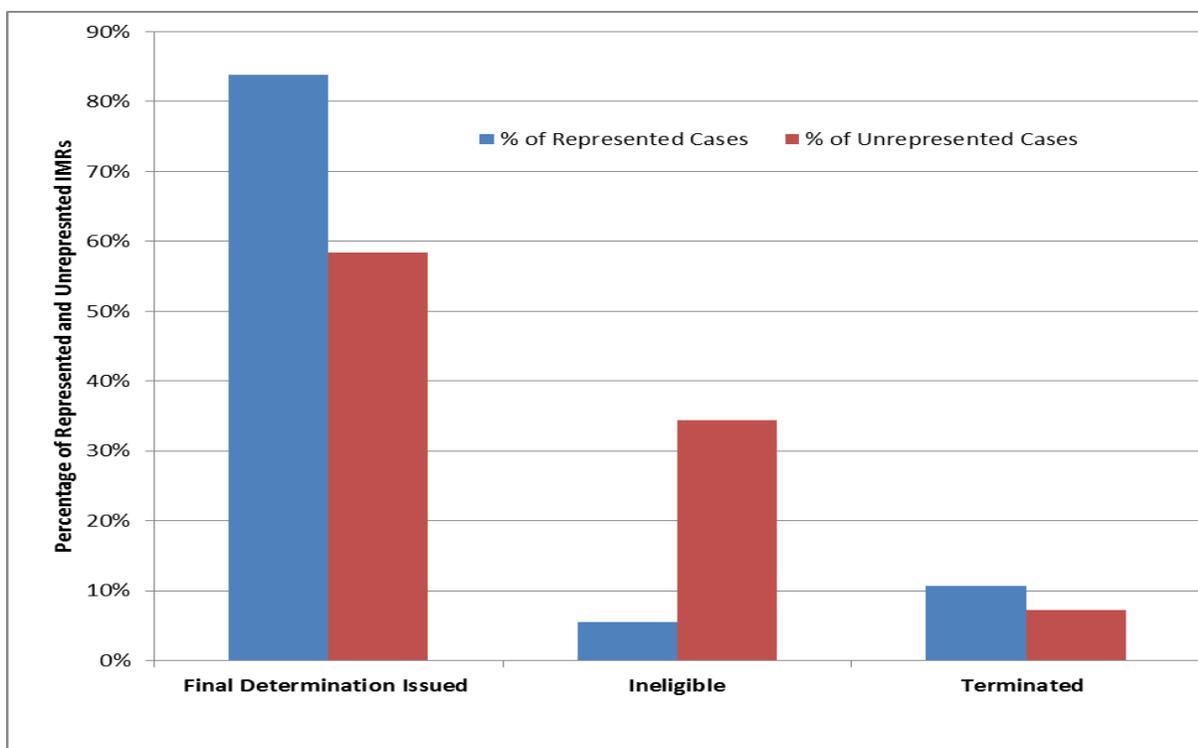


\* Total IMR cases closed: 53,951; total WCIS claims: 566,659. WCIS claims data is available at [http://www.dir.ca.gov/dwc/wcis/WCIS\\_Reports.html](http://www.dir.ca.gov/dwc/wcis/WCIS_Reports.html).

## Worker Representation

Either an injured worker or a designated representative may file an IMR request. In 2013, more than four out of 10 (44%) IMR closed cases had a worker representative. Based on the data available, it was not possible to determine with certainty whether the worker was represented by an attorney or someone otherwise qualified. Compared to IMR applications filed by represented workers, an IMR filed without an injured worker representative was seven times more likely to be declared ineligible and 26% less likely to have an FDL issued (Figure 7; [Appendix D](#)).

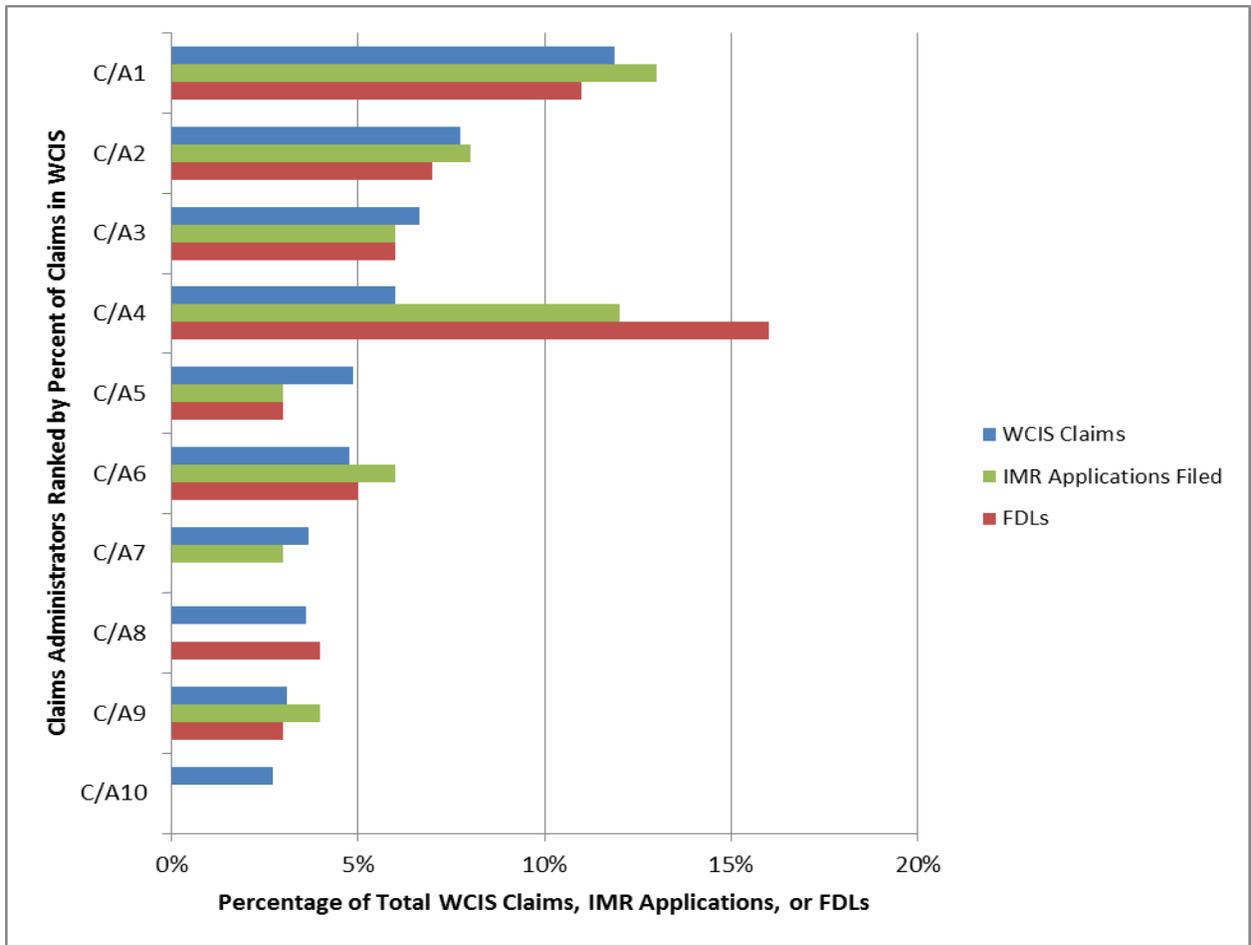
**Figure 7. Final Status of IMR Closed Cases for Represented and Unrepresented Workers**



## UR Claims Administrators Associated with IMR Applications

IMR applications reflected cases managed in UR by 185 claims administrators. The volume of WCIS claims and IMR applications from the top 10 claims administrators by WCIS claims market share are shown in Figure 8. These top 10 claims administrators accounted for 55% of workers' compensation claims filed, 55% of IMR applications, and 55% of FDLs issued in 2013. The remaining 175 Claims Administrators accounted for 45% of WCIS claims, IMR applications, and FDLs.

**Figure 8. Top Ten Claims Administrators: Workers' Compensation Claims, IMR Applications, and FDLs**



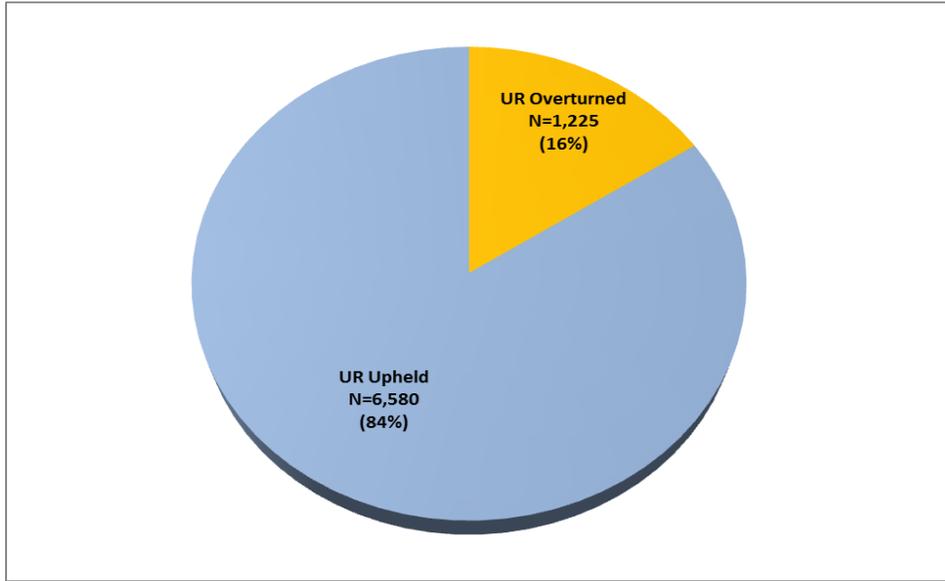
### IMR Decisions

An IMR application can dispute either one or multiple UR treatment modifications or denials. The FDL addresses all disputed treatments eligible for IMR and may contain decisions on multiple disputed treatments. Analyses in the following sections reflect treatment decisions from FDLs completed and mailed before December 31, 2013.

Each individual disputed treatment may be determined to be either “medically necessary and appropriate” or “not medically necessary and appropriate.” An IMR decision that a disputed treatment is medically necessary and appropriate overturns the UR decision. An IMR decision that the disputed treatment is not medically necessary and appropriate upholds the UR decision.

As of December 31, 2013, 3,723 FDLs reported decisions on 7,805 disputed treatments ([Appendix B](#)). The vast majority of decisions (84%) upheld the original UR decision that the disputed treatment was not medically necessary (Figure 9).

**Figure 9. IMR Decisions, FDLs Issued by December 31, 2013**



In cases where workers were unrepresented, IMR decisions were slightly more likely to overturn the UR decision than where workers were represented (18% vs. 15%) (Table1).

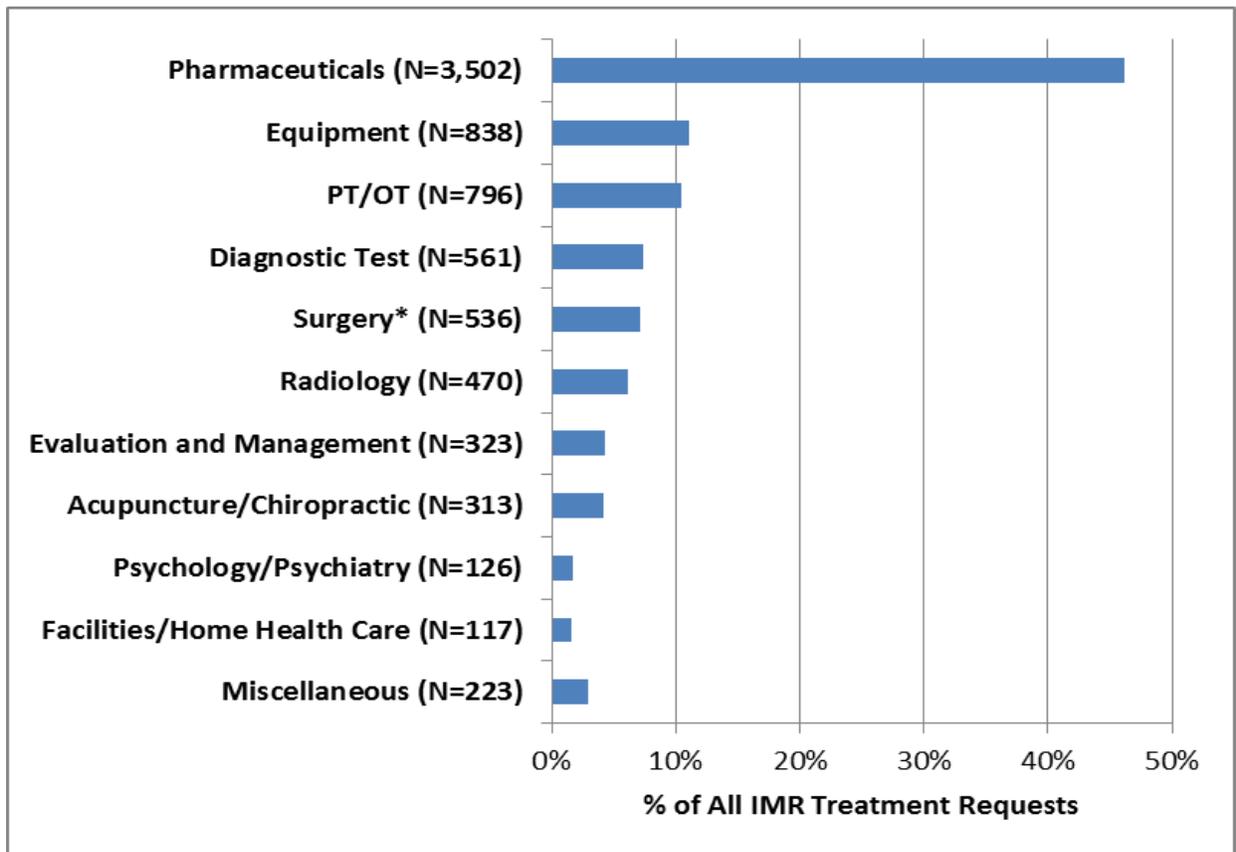
**Table 1. IMR Decisions for Represented and Unrepresented Workers**

Worker Represented	Treatment Decisions	UR Overturned	UR Upheld
Yes	5,658	15%	85%
No	2,147	18%	82%
<b>Total</b>	<b>7,805</b>	<b>16%</b>	<b>84%</b>

## Disputed Treatments

The top five treatment categories for which IMR decisions were issued in 2013 were the following: pharmaceuticals, durable medical equipment, physical therapy (PT) / occupational therapy (OT), diagnostic tests, and surgery (Figure 10). Regardless of the treatment category, IMR was more likely to uphold, rather than overturn, the UR decision ([Appendix E](#)).

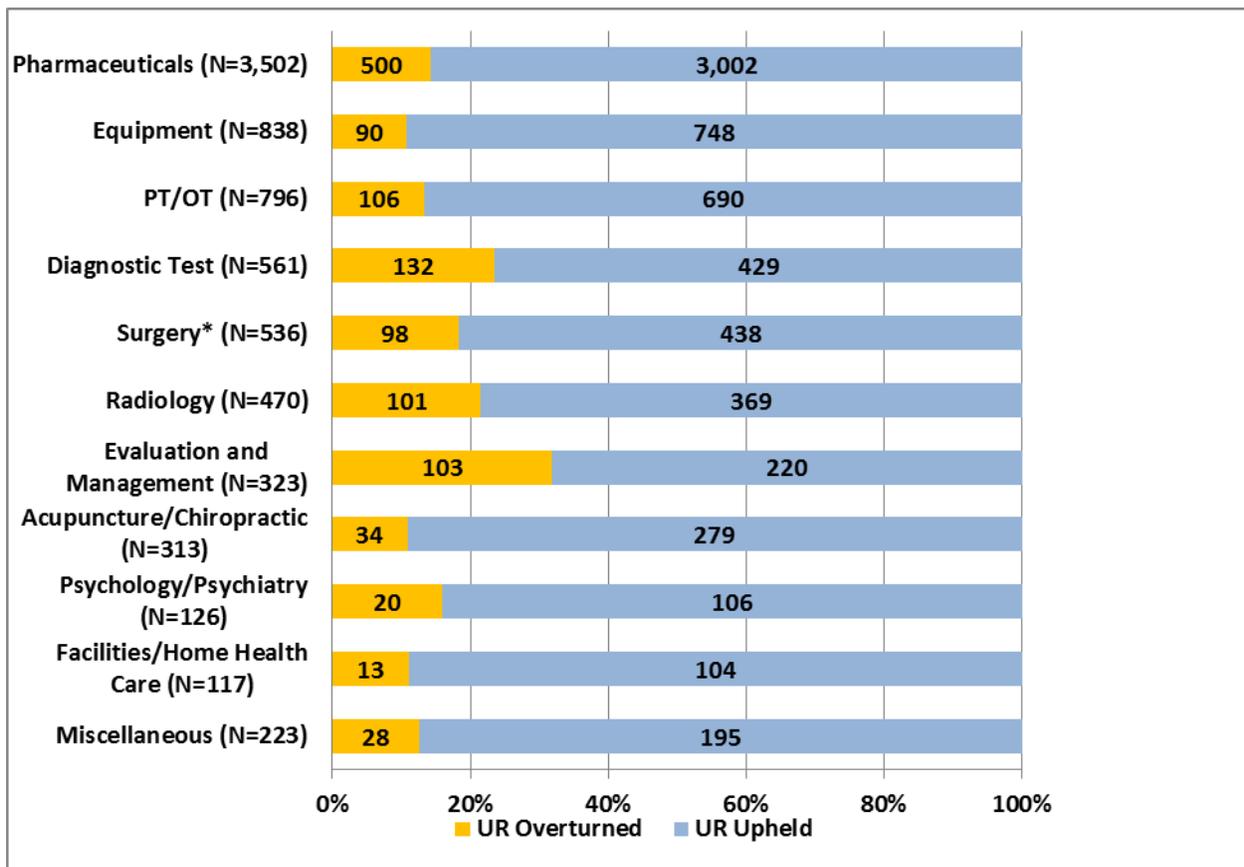
**Figure 10. Categories of Disputed Treatments by Percentage\***



\* Surgical treatments include surgical procedures, post-operative care, pre-operative care, and engagement of assistant surgeons.

Decisions for the following treatment categories most frequently overturned the UR decision: evaluation and management, typically a request for evaluation by another physician (32% overturned UR); diagnostic test (24% overturned UR); and radiology (21% overturned UR) (Figure 11). UR decisions were most likely to be upheld in the following treatment categories: durable medical equipment (11% overturned); facilities and home health care (11% overturned); and acupuncture (11% overturned).

**Figure 11. IMR Decisions by Treatment Category\***



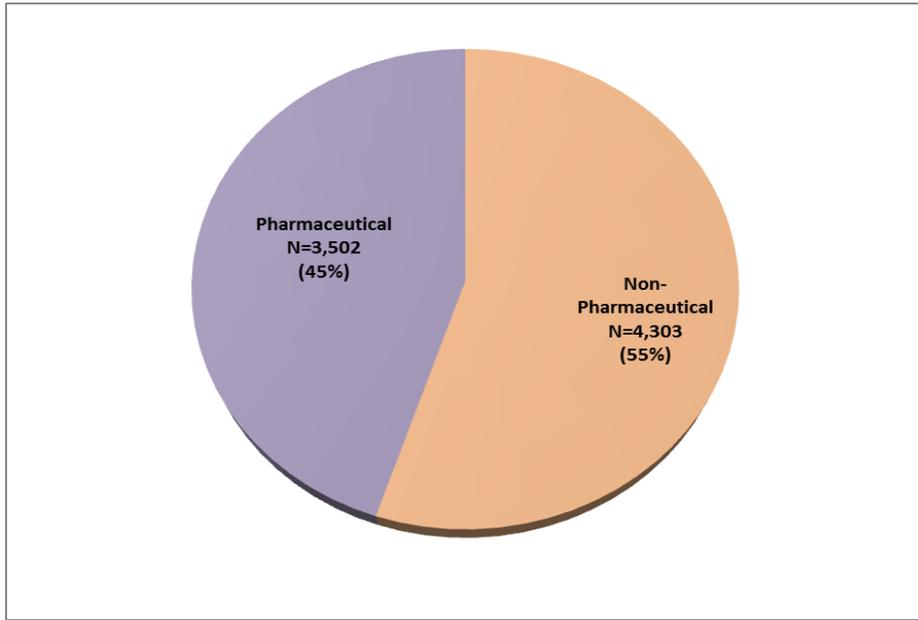
\* The total of disputed surgical treatments includes 355 primary procedures and 170 adjunct procedures. Adjunct procedures include post-operative care, pre-operative care, and engagement of assistant surgeons. See the surgery section below for a more detailed look at surgical treatments.

Additional analyses were conducted on pharmaceuticals treatments, because of the high volume of requests, and on surgical treatments, because of the potential cost and serious health complications.

## Pharmaceutical Treatments

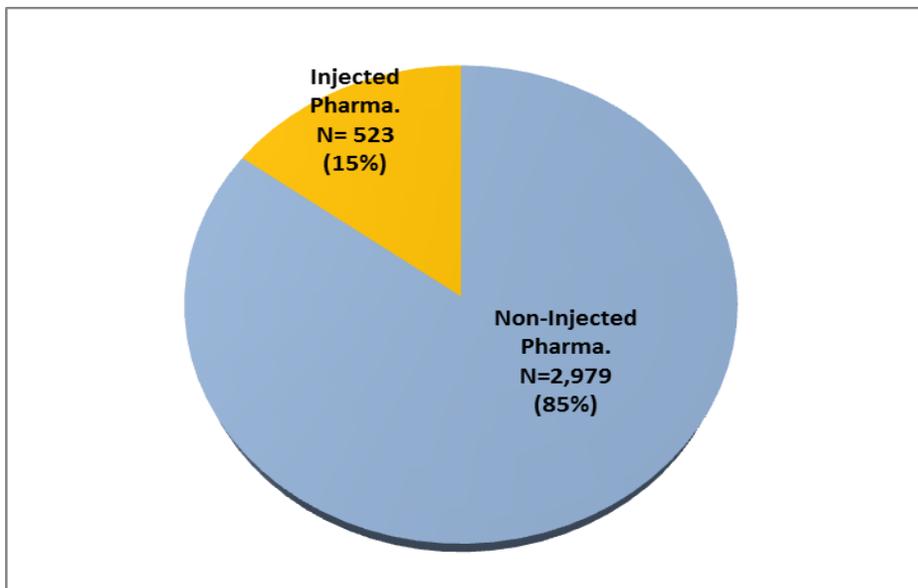
Nearly half of all IMR disputed treatments (45%) were pharmaceutical (Figure 12).

**Figure 12. Pharmaceutical Treatments as Percentage of Total Disputed Treatments**



In 2013, 85% of all pharmaceutical requests were for non-injected pharmaceuticals (Figure 13, [Appendix F](#)).

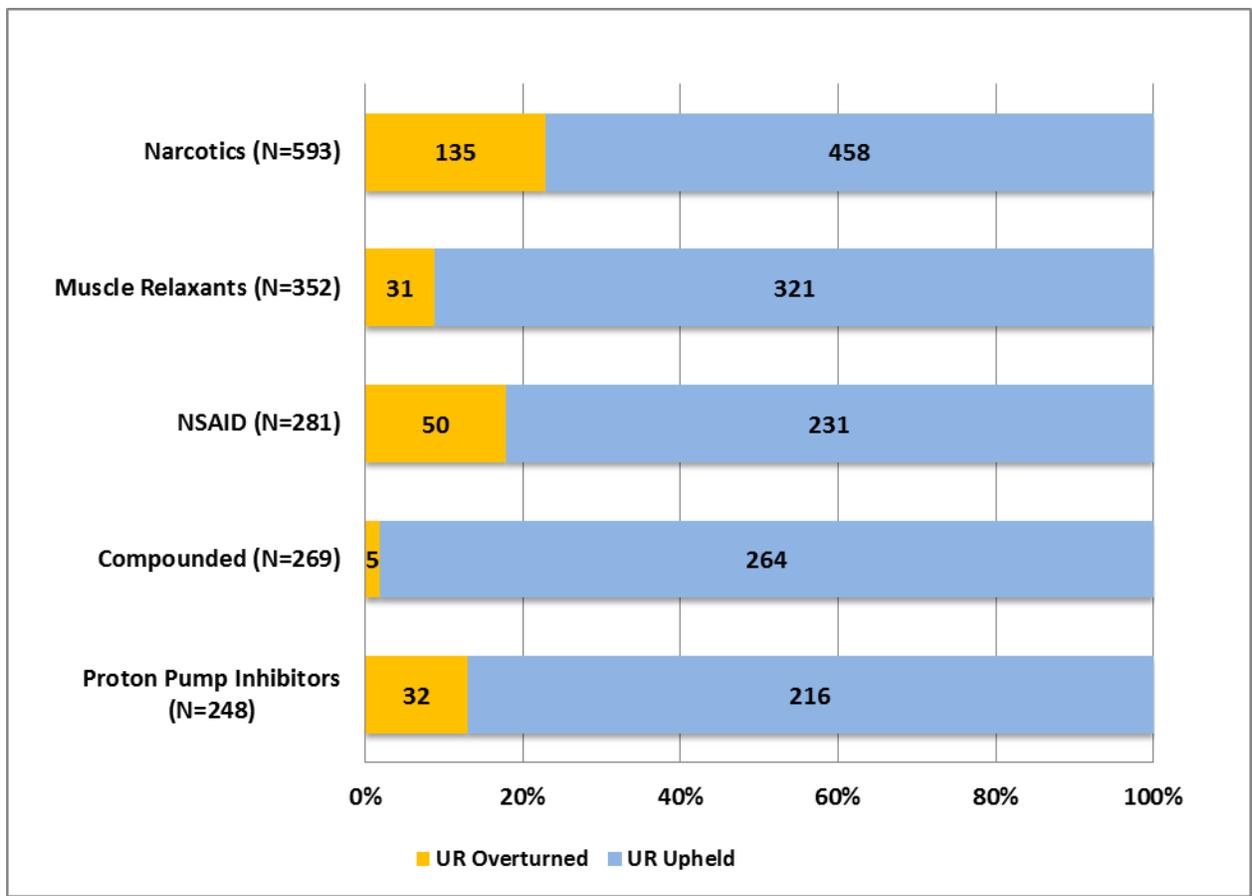
**Figure 13. Disputed Pharmaceutical Treatments, Injected and Non-Injected**



Steroids were the most common category of injected pharmaceutical ([Appendix G](#)) and the sixth most common type of pharmaceutical request. IMR decisions on steroid injections were more likely to overturn UR decisions than those on all other types of injections (21% vs. 11%). Steroid injections were most frequently requested for the spine (92% of steroid treatments).

The top five categories of non-injected pharmaceuticals disputed in IMR are shown in Figure 14 ([Appendix F](#)). Opioids accounted for one-fifth (20%) of non-injected pharmaceutical treatments disputed and 8% of all disputed treatments. IMR overturned 23% of disputed opioid treatments. Decisions involving compounded drugs overturned UR decisions least frequently (2% overturn rate).

**Figure 14. IMR Decisions for Top Five Non-Injected Pharmaceutical Treatment Categories\***



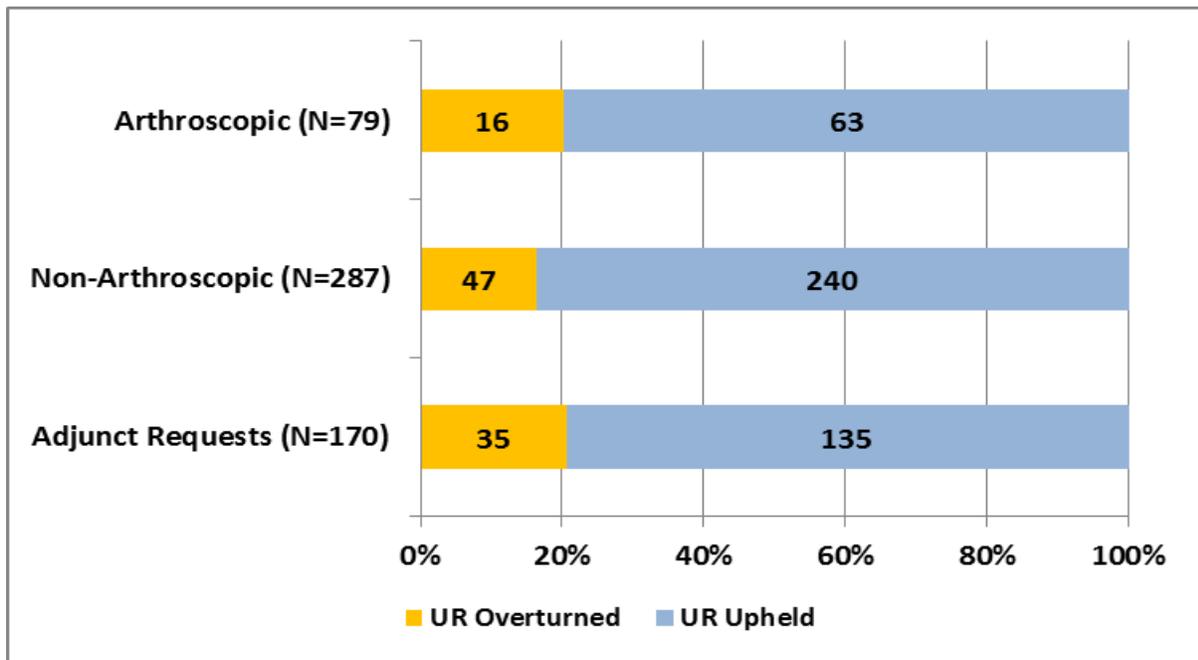
\* NSAID: Non-Steroidal Anti-Inflammatory Drug.

## Surgical Treatments

IMR applications for disputed surgical treatments include surgical procedures and associated ancillary procedures. Ancillary procedures include pre-operative evaluation, post-operative care, and consultations with additional physicians. The analysis below depicts only disputed surgical treatments and not ancillary requests.

In 2013, only 7% of disputed treatments were surgical, and slightly more than one in five (22%) of these was for arthroscopic surgery (Figure 15, [Appendix H](#)).

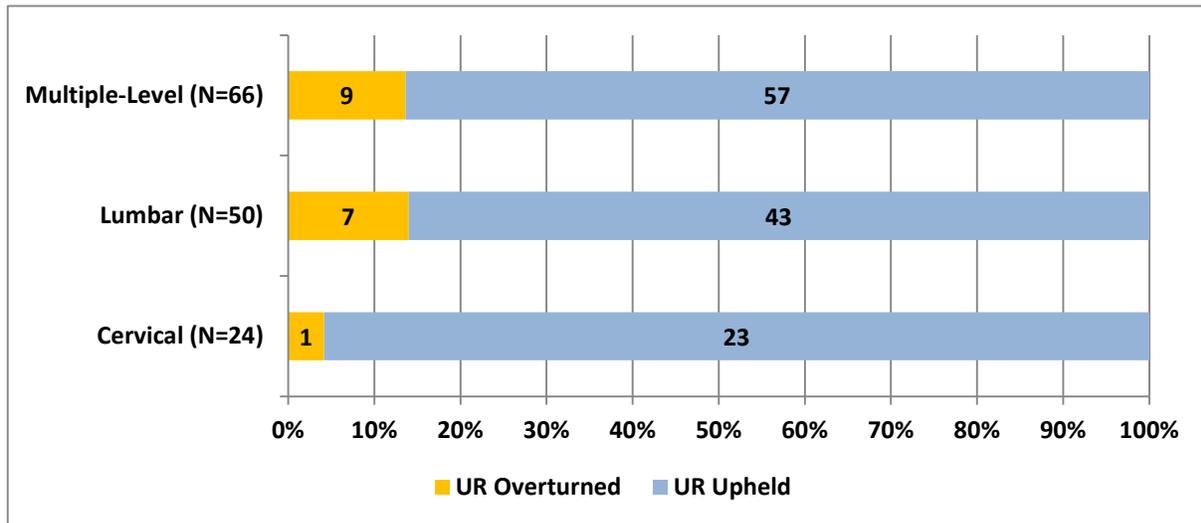
**Figure 15. IMR Decisions on Surgical Treatments\***



\* Adjunct disputed treatments were related to surgical procedure type. Decisions reflect a total of 536 disputed treatments, of which 366 were surgical procedures and the rest adjunct procedures.

In 2013, spinal surgery was the most common surgical treatment on which an IMR decision was issued (38% of all surgeries) ([Appendix H](#)). Of all spinal surgeries, IMR of those involving the cervical region were most likely to uphold the UR decision (Figure 16).

**Figure 16. IMR Decisions on Spinal Surgery**

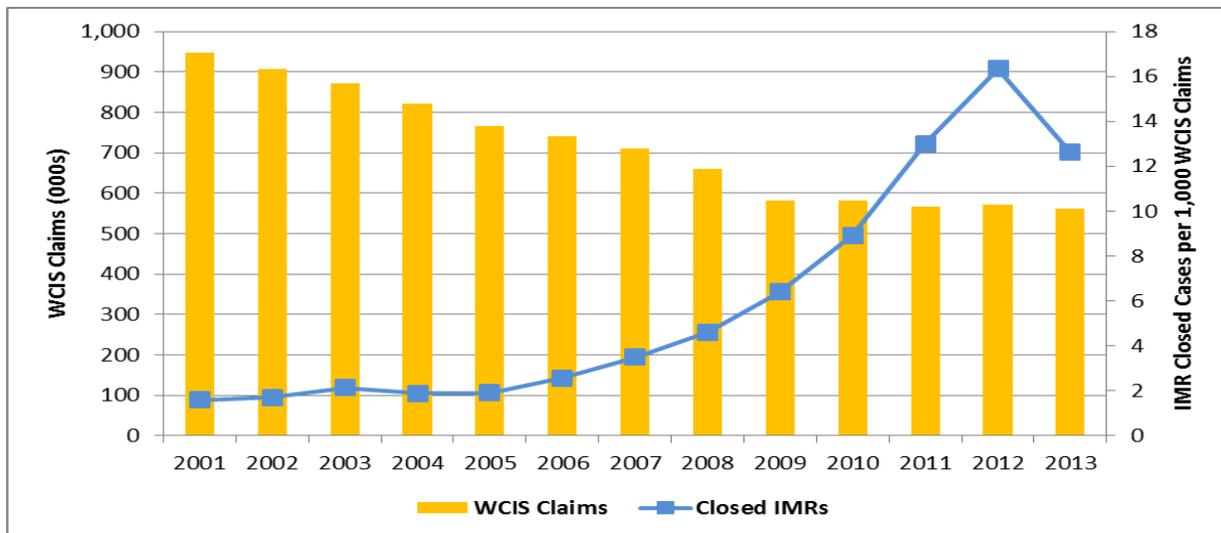


Shoulder surgery was the most commonly disputed arthroscopic procedure in 2013 (9.6% of all surgeries). Decisions on arthroscopic surgeries involving the knee were most likely to overturn the UR decision (24% overturn rate) ([Appendix H-2](#)).

**IMR Decisions and Year of Injury**

The rate of workers’ compensation claims filed with DWC (and captured in WCIS) has decreased over time. However, more than half of IMR cases closed addressed injuries that took place after 2010 (Figure 17).

**Figure 17. WCIS Claims and Closed IMR Cases, by Year of Injury\***

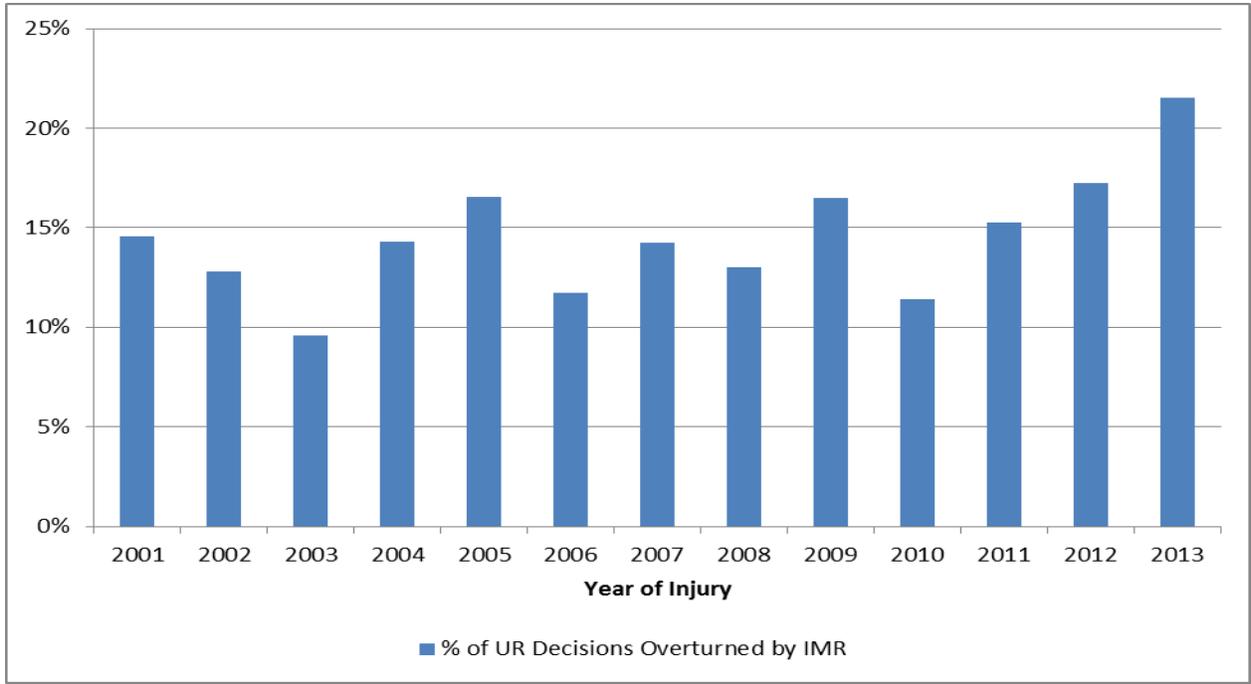


\* Total closed IMR cases with a date of injury between 2001 and 2013: 48,010. Total WCIS Claims with a date of injury between 2001 and 2013: 9.2 million. It is estimated that WCIS claims are undercounted by 13% in any given year. [http://www.dir.ca.gov/dwc/wcis/WCIS\\_Reports.html](http://www.dir.ca.gov/dwc/wcis/WCIS_Reports.html)

The IMR application requires a WCIS number, assigned by DWC at the time a claim is reported. Matching IMR applications with WCIS claims should make it possible to track the progress of an occupational injury over time. However, only approximately 30% of 2013 applications included a valid WCIS number. No additional matching (e.g., by claims administrator's number) or tracking was performed for this first annual IMR report.

IMR decisions were more likely to overturn the UR decisions in cases where the year of injury was 2013 (22% overturned) rather than prior years (10%-18% overturned) (Figure 18).

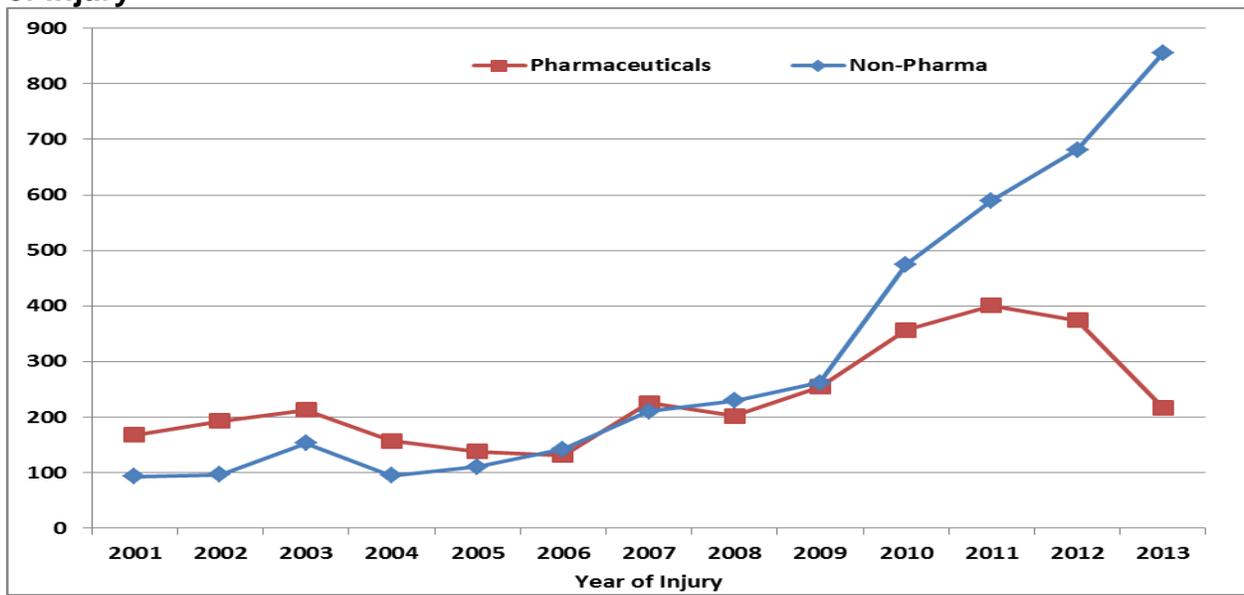
**Figure 18. Percentage of UR Decisions Overturned in IMR, by Year of Injury\***



\* N=7,805.

IMR applications for years of injury prior to 2010 were slightly more likely to dispute a pharmaceutical rather than a non-pharmaceutical treatment. Conversely, for more recent years of injury (2010-2013), an IMR application was much more likely to dispute a non-pharmaceutical treatment. The actual number of disputed pharmaceutical treatments varied slightly by year of injury but showed no clear trend (Figure 19).

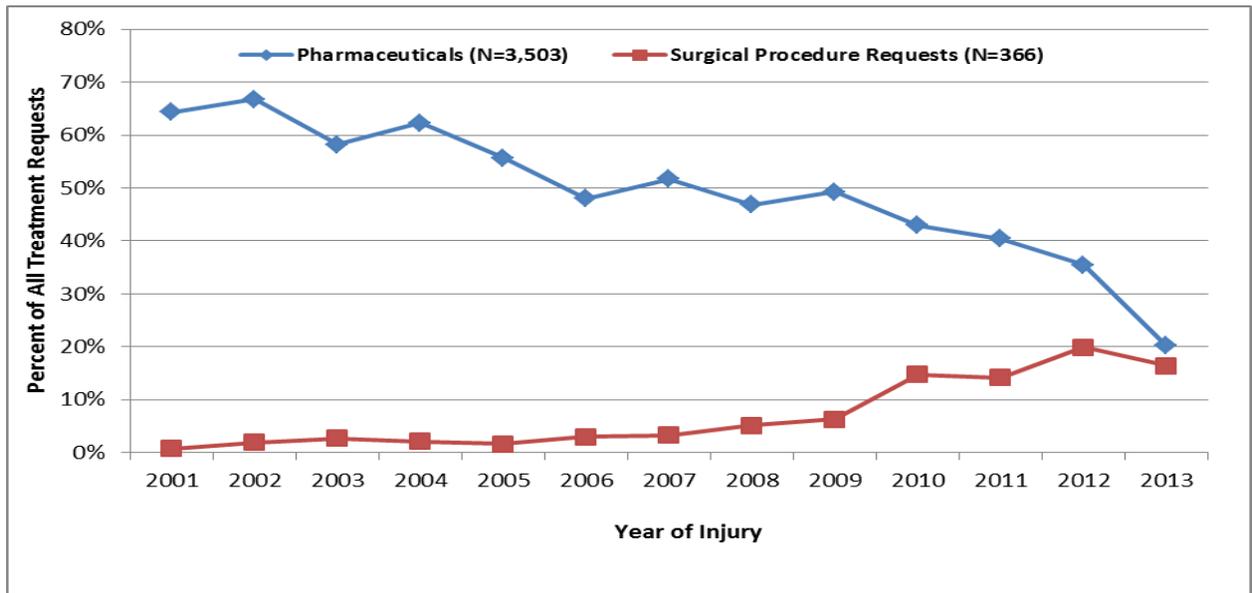
**Figure 19. Disputed Pharmaceutical and Non-Pharmaceutical Treatments, by Year of Injury\***



\* Total disputed pharmaceutical treatments: 3,502; disputed non-pharmaceutical treatments: 4,303.

Although the total number of disputed pharmaceutical treatments for injuries dated prior to 2010 was lower than that of more recent injuries, disputed treatments for older injuries were more likely to be pharmaceutical than those for more recent injuries (Figure 20). The majority of disputed surgical treatments (65%) were for injuries occurring after 2010.

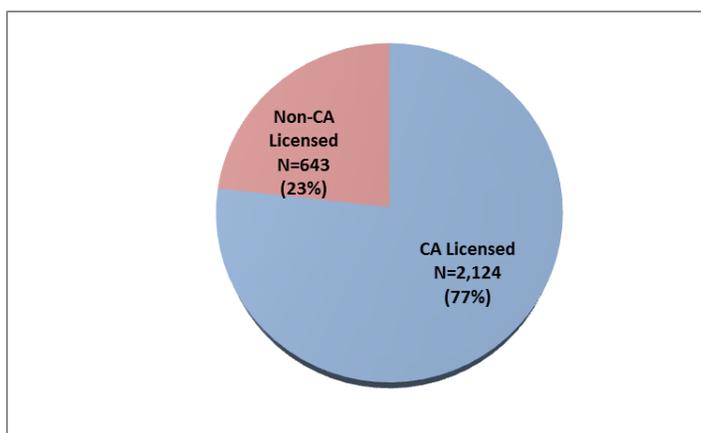
**Figure 20. Pharmaceutical and Surgical Treatments as Percentage of Total Disputed Treatments, by Year of Injury**



### Physician Reviewers

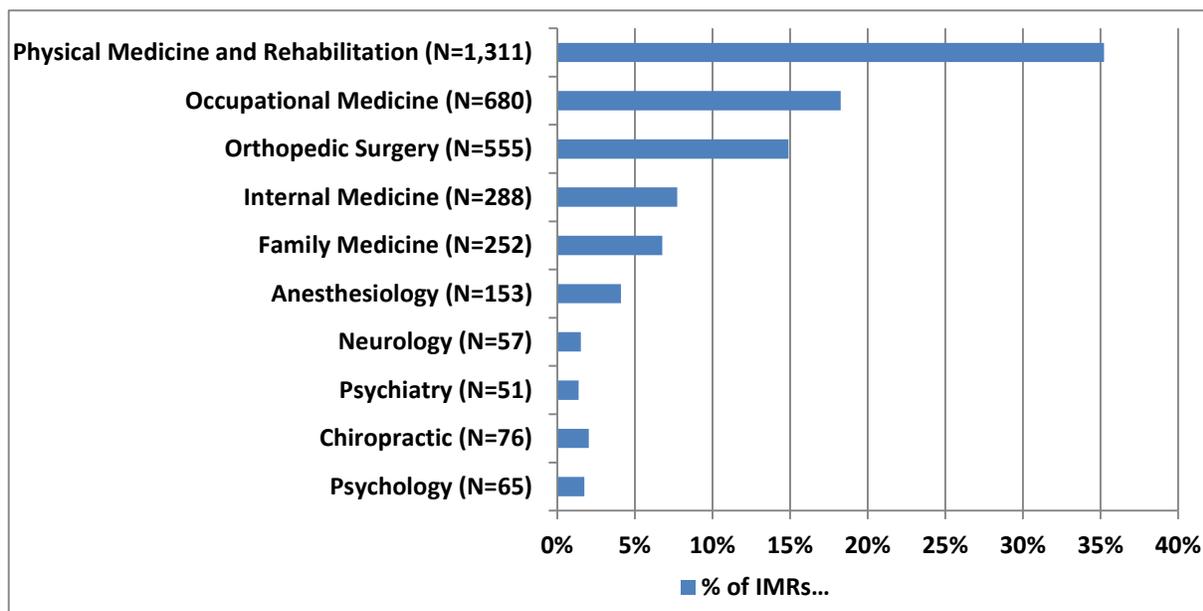
While the IMRO may employ physician reviewers licensed in any state if needed to meet timelines and demand, preference is given to California-licensed medical professionals. In 2013, 77% of physician reviewers who completed reviews were licensed in California (Figure 21).

**Figure 21. Percentage of IMR Physician Reviewers Licensed in California**



The IMRO matches physician reviewers to the nature of the injury and the treatment dispute. Physical medicine and rehabilitation (PM&R) specialists most commonly conducted IMRs in 2013 (35%), followed by occupational medicine physicians (18%), and orthopedic surgeons (15%) (Figure 22, Table 2).

**Figure 22. Medical Specialties of Top Ten IMR Physician Reviewers, by Total Number of Cases**



The rate of UR overturn varied by physician reviewer specialty. Among medical specialists who issued decisions on at least 200 disputed treatments, occupational medicine physicians were the most likely to overturn UR decisions (20%) (Table 2). The 200-treatment threshold was chosen by DWC as it reflected a sufficient number of decisions on which to base conclusions.

**Table 2. IMR Decisions by Specialty of Physician Reviewer**

Physician Reviewer Specialty	Treatment Decisions (#)	Treatment Decisions (%)	UR Overturned (%)	UR Upheld (%)
Physical Medicine and Rehabilitation	2,851	36.5%	17%	83%
Occupational Medicine	1,367	17.5%	20%	80%
Orthopedic Surgery	1,301	16.7%	12%	88%
Internal Medicine	612	7.8%	12%	88%
Family Medicine	458	5.9%	5%	95%
Anesthesiology	337	4.3%	14%	86%
Chiropractic Care	99	1.3%	20%	80%
Psychology	87	1.1%	13%	87%

Physician Reviewer Specialty	Treatment Decisions (#)	Treatment Decisions (%)	UR Overturned (%)	UR Upheld (%)
Neurology	108	1.4%	24%	76%
Psychiatry	102	1.3%	23%	77%
Surgery	76	1.0%	22%	78%
Radiology	21	0.3%	38%	62%
Acupuncture	14	0.2%	7%	93%
Podiatry	14	0.2%	50%	50%
Dentistry	17	0.2%	35%	65%
Pain Management	21	0.3%	5%	95%
Emergency Medicine	10	0.1%	0%	100%
Optometry	10	0.1%	30%	70%
Otolaryngology	8	0.1%	50%	50%
Preventive Medicine	5	0.1%	0%	100%
Pulmonary	4	0.1%	0%	100%
Rheumatology	1	0.0%	100%	0%
Miscellaneous	11	0.1%	18%	82%
Multiple Specialties	271	3.5%	6%	94%
<b>Total</b>	<b>7,805</b>	<b>100%</b>		

## Decision Rationales

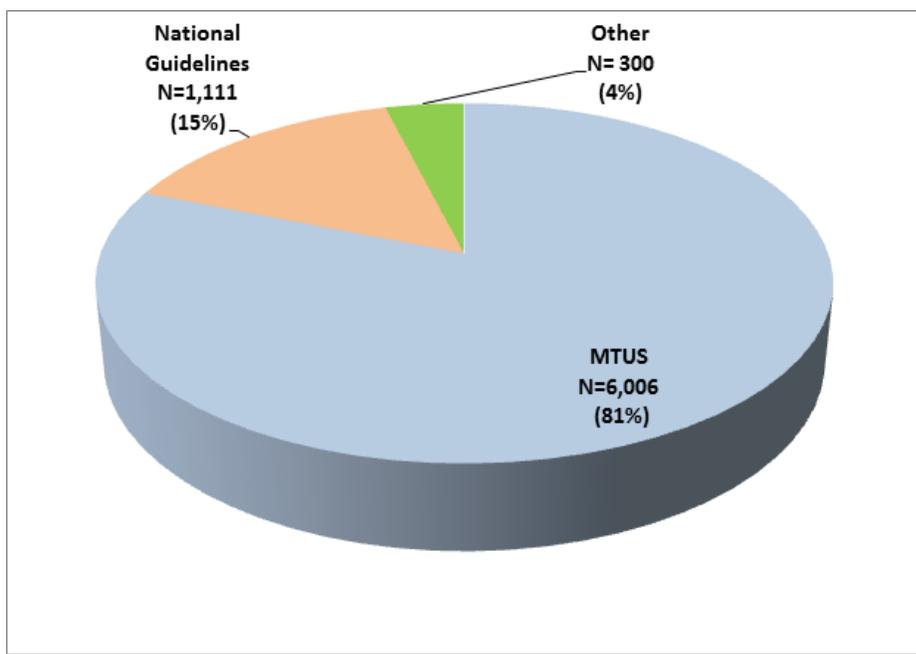
Relying on guidelines based on high-quality medical studies, commonly known as “evidence-based medicine,” in determining appropriate treatments provides the greatest benefits, least harm, and most efficient use of resources.<sup>2</sup> The [Medical Treatment Utilization Schedule](#) (MTUS) adopted by the DWC Administrative Director (AD) guides care in the California workers’ compensation system. Patients benefit when clinical care follows the principles of evidence-based medicine. UR decisions must be based on the evidence-based recommendations of the MTUS.

SB 863 requires independent physician reviewers to use a “hierarchy of evidence” to determine if a disputed treatment is medically necessary. The DWC MTUS, based on the principles of evidence-based medicine, is the highest authority in this hierarchy. The MTUS provides a framework for the most effective treatment that produces the least harm for ill and injured workers.

<sup>2</sup> Sackett, D. Evidence based medicine: what it is and what it isn't. BMJ 1996;312:71.

For each 2013 IMR treatment decision, both the evidence-based rationale cited in the UR decision and that cited by the independent physician reviewer were recorded. Claims administrators and utilization review organizations based three out of four treatment decisions (77%) on the MTUS (Table 3, [Appendix I](#)). Physician reviewers also relied most commonly on the MTUS, citing it in eight out of ten IMR decisions (81%) (Figure 23).

**Figure 23. Type of Evidence Cited by Physician Reviewer\***



\* By disputed treatment.

The physician reviewer cited other guidelines, such as those from American College of Occupational and Environmental Medicine (ACOEM) or the Work Loss Data Institute’s Official Disability Guidelines (ODG), in 15% of IMR decisions. Some FDLs cited sources considered of poor quality, such as publications of drug manufacturers ([Appendix I](#)). No authority was cited in 12% of UR decisions and 0.1% of IMR decisions ([Appendix I-1](#))

**Table 3. Citation of MTUS by Claims Administrators and IMR Physician Reviewers**

		Citation of MTUS Guidelines by Claims Administrator for UR Decisions		
		Yes	No	Total
Citation of MTUS Guidelines by IMR Physician Reviewer	Yes	4,745 (61%)	1,261 (16%)	<b>6,006 (77%)</b>
	No	302 (4%)	1,497 (19%)	<b>1,799 (23%)</b>
	Total	<b>5,047 (65%)</b>	<b>2,758 (35%)</b>	<b>7,805 (100%)</b>

Disputed acupuncture and chiropractic treatments were most likely to have both the claims administrator and the physician reviewer cite the MTUS as the rationale for decisions (83%). Facility and home healthcare treatments (44%) and surgical treatments (42%) were least likely to have either reviewer cite the MTUS ([Appendix J](#)).

One out of three (31%) IMR decisions on spinal surgery and two out of three (65%) IMR decisions on non-arthroscopic knee surgery were not based on the MTUS. IMR was slightly more likely to overturn a UR decision if that decision did not cite the MTUS and the IMR decision did cite it (18% overturned) (Table 4, [Appendix J-1](#)). IMR was least likely to overturn the UR decision if both reviewers used the MTUS or neither reviewer used it (15% overturned).

**Table 4. Citation of MTUS by Claims Administrators and IMR Physician Reviewers for Overturned UR Decisions\***

		Citation of MTUS by Claims Administrator for UR Decisions		
		Yes	No	Total
Citation of MTUS by IMR Physician Reviewer	Yes	15%	18%	16%
	No	17%	15%	15%
	Total	16%	16%	16%

\* The “Total” row and column in this table describe the total percentage of UR decisions that IMR overturned out of all UR decisions reviewed, regardless of the reliance on MTUS. Eighty-four percent of UR decisions were upheld.

### Review of IMR Decisions for Quality Assessment

Fifty IMR FDLs addressing 147 disputed treatments were selected for detailed review on the basis of reviewer specialty. The dates of injury ranged from 1997 (1 injury) to 2013 (15 injuries). The majority of cases (35, 70%) had dates of injury from 2009-2013. The majority of IMR decisions (22, 44%) were related to the spine. The top 5 treatment categories were pharmaceuticals, durable medical equipment, physical therapy, and evaluation and management, but a wide variety of treatment types were represented ([Appendix K](#)).

The physician reviewers authoring all but one FDL were licensed in California. The category with the most disputed treatments was orthopedic surgery (48 of 147, 33%), and FDLs were most often issued by PM&R specialists. The top three treatment categories reviewed by the top three reviewer specialties are shown in Table 5, along with a breakdown by treatment category of all the disputed treatments they reviewed.

**Table 5. Treatment Categories of All UR Decisions Reviewed in FDLs of the Top Three Physician Reviewer Specialties in 50 FDLs\***

<b>Treatment Category</b>	<b>Count</b>	<b>Percentage</b>
<b>Physical Medicine and Rehabilitation</b>	<b>50</b>	<b>59%</b>
Pharmaceuticals	28	33%
Radiology	3	4%
Physical Therapy	3	4%
Durable Medical Equipment	3	4%
Spinal Injections	2	2%
Home Health	2	2%
Laboratory Tests	2	2%
Massage	1	1%
Acupuncture	1	1%
Chiropractic Care	1	1%
Electro-stimulation	1	1%
Transport	1	1%
Functional Capacity Evaluation	1	1%
Psychiatric Treatment	1	1%
<b>Occupational Medicine</b>	<b>21</b>	<b>25%</b>
Pharmaceuticals	10	12%
Durable Medical Equipment	7	8%
Radiology	1	1%
Physical Therapy	1	1%
Evaluation and Management	1	1%
Diagnostic Tests	1	1%
<b>Orthopedic Surgery</b>	<b>14</b>	<b>16%</b>
Surgery	4	5%
Spinal Injections	3	4%
Durable Medical Equipment	2	2%
Laboratory Tests	2	2%
Evaluation and Management	1	1%
Physical Therapy	1	1%
Radiology	1	1%
<b>Grand Total</b>	<b>85</b>	<b>100%</b>

\* The 50 FDLs resolved 147 disputed treatments.

Each decision on a disputed treatment contains a rationale that cites the medical authority relied upon. Out of the 147 FDLs reviewed, 117 (80%) cited the MTUS as the basis of the decision. All FDLs noted when the MTUS did not apply but did not consistently describe the reasons for its inapplicability. The two treatment guidelines cited most often when the MTUS did not apply were those from the American College of Occupational and Environmental Medicine and the Official Disability Guidelines published by the Work Loss Disability Institute.

**Table 6. Evidence Cited in IMR Decision Rationale in 50 FDLs Reviewed**

Authority Cited	Number
<b>MTUS</b>	<b>117</b>
ODG	58
MTUS	33
ACOEM	18
MTUS and ODG	3
ACOEM	2
Acupuncture	1
ODG & ACOEM	1
ODG & CCR	1
<b>Non-MTUS</b>	<b>30</b>
ODG	9
ACOEM	5
No guidelines used	5
Drug package insert	2
FDA	1
Medline Plus (online source)	1
No authority required, ancillary service upheld	7
<b>Total</b>	<b>147</b>

Some FDLs reviewed did not contain a clear citation of the authority used and some cited miscellaneous non-published sources (Table 6). Of the FDLs reviewed, 81.6% upheld UR decisions while 18.3% overturned them. The MTUS was used most frequently when the UR decision was upheld, in 95 of 120 cases (79%) (Table 7).

**Table 7. IMR Decision Outcome and Citation of MTUS and Other Evidence in 50 FDLs Reviewed**

<b>IMR Decision</b>	<b>Authority Cited</b>	<b>Number</b>
<b>UR Overturned</b>		<b>27</b>
	MTUS	22
	Non-MTUS	5
<b>UR Upheld</b>		<b>120</b>
	MTUS	95
	Non-MTUS	25
<b>Total</b>		<b>147</b>

For the FDL sample reviewed, the most common reason cited for upholding the UR decision was inadequate documentation to justify the treatment: 61% (73/120) of the disputed treatments that resulted in an IMR decision to uphold UR cited lack of documentation. The lack of documentation cited in the sample falls into four categories: absence of clinical detail required by the treatment guideline (67%); failure to document benefit (such as pain relief) of treatment (20%); absence of documentation of improved function (such as increase in activities of daily living or improved working capabilities) (10%); and lack of detail on the disputed treatment (3%) ([Appendix L](#)).

## LIMITATIONS

At the time of this first annual report the primary source of information on IMR was the IMR application form, which had field limitations. Thus, limited or no information was available on various elements, such as demographics of the worker population filing for IMR, the roles and identities of representatives, physicians initially requesting treatment, and diagnostic and procedure codes for disputed treatments. Furthermore, at the start of the program, data abstraction was manual and labor-intensive, resulting in a delay in issuing this first report.

Because information on timelines for resolution of medical treatment disputes was not available prior to implementation of IMR, important differences from the prior system in timelines, procedures, and decision-making cannot be quantified.

Evaluating the efficacy of IMR in improving care to workers is beyond the scope of this initial report. Factors including volume, appropriateness and cost of medical treatments and the IMR process, quality of care, improvement of the worker's medical condition, earlier return to work, and reduced temporary and permanent disability merit consideration in future studies as data become available.

The impact of IMR decisions, both those that uphold UR decisions and those that overturn them, on workers will also be important to assess in future analyses, as will the outcomes of judicial appeals of IMR decisions.

## CONCLUSIONS AND THE FUTURE OF IMR

The IMR Program was successfully implemented in 2013 and provides evidence-based treatment decisions, whereas the previous judicially based system was not based on medical evaluation or medical evidence. In spite of a higher than anticipated volume of applications and large numbers of incomplete and duplicate applications, DWC was able to make great strides to improve the IMR process and respond to stakeholder concerns. The division expended considerable efforts to increase eligibility and educate stakeholders about requirements. As a result of process enhancements such as hiring and training additional staff, increasing logistical support, streamlining protocols, and moving toward automated processes, IMR decisions were being issued within the required timeframe by October 2014.

DWC's analysis suggests that in most cases where UR decisions denied a treatment request, they did so on evidence-based grounds, with the majority of these decisions citing the MTUS. Likewise, the vast majority of IMR decisions were evidence based, most commonly citing the MTUS. Decisions where neither the claims administrator nor the physician reviewer adhered to treatment guidelines illustrate opportunities for enhancement of the MTUS. The quality and consistency of decisions issued by physician reviewers continued to improve over the course of the first year.

Most IMR decisions upheld UR decisions. Pharmaceutical treatments were the single largest category of IMR disputed treatments. Although reliable diagnostic information was not available in 2013 cases, analysis of the types of disputed medical treatments suggests that treatment for pain was a frequent subject of dispute. IMR most commonly overturned requests in the category of evaluation and management, typically consultation with another medical professional.

Analysis of 50 IMR FDLs provides a snapshot of the quality of IMR decisions in the program's first year. This qualitative assessment showed that while there was variability early in 2013, by the end of the year, the letter format and understandability, as well as decision rationales, were consistent and of better quality. Review also identified the need to improve evidence-based guidelines on topics such as chronic pain management, home health care, and certain durable medical equipment and pharmaceuticals.

In its first year, the DWC IMR Program issued a total of 3,723 decisions and overturned 16% of UR decisions. In contrast, the DMHC IMR program for group health, non-work-related medical conditions, on which the DWC program was based, reviewed only 7,483 medical cases over 10 years (2001-2010), overturning between 36% and 50% of UR decisions.<sup>3</sup> Disputes regarding experimental therapies, which are considered by DMHC, are not included in these numbers. If they were included (as they are in the DWC data), then it is likely that the rate at which the DMHC IMR program overturned UR decisions would be higher. Furthermore, unlike the DWC IMR process, the IMR process used by

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<sup>3</sup> California Healthcare Foundation. Ten Years of California's Independent Medical Review Process. 2012.

DMHC required that medical disputes be appealed with the insurance carrier prior to being submitted for IMR. Our analysis highlights two reasons for the comparatively high uphold rate in the DWC IMR program. First, disputed treatment requests that were not consistent with evidence-based guidelines were highly likely to be overturned. Additionally, medical records for IMR FDLs that upheld UR decisions frequently did not contain adequate documentation to justify medical necessity.

The Medical Treatment Utilization Schedule (MTUS), the evidence-based set of guidelines adopted by the DWC, is the standard of care in the California workers' compensation system. The MTUS is presumed to be correct but is rebuttable with higher level evidence. Evidence-based medicine provides best practices for care, regardless of the population. Among workers, evidence-based practices help reduce disability.<sup>4</sup> Our findings suggest that at least some medical professionals who treat workers in California are not familiar with the MTUS and the need to provide and document evidence-based care.

To maintain transparency, DWC posts FDLs on the DWC website, frequently making updated data available to researchers. In the future, improved automation of data reporting and refinement of analytic methods will streamline the process of producing annual reports. Streamlining will create an unprecedented opportunity to analyze statewide data on medical dispute resolution and, more importantly, to recommend methods to achieve rapid and efficient delivery of care to injured workers. In addition, data gathering and analysis can demonstrate quantifiable progress made by recent legislative reforms.

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<sup>4</sup> Franklin G. Workers' Compensation: Poor Quality Health Care and the Growing Disability Problem in the United States. *Am J Ind Med.* 2014, October 20. Epub ahead of Print.

## Appendix A. 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 B. Status of 2013 IMR Applications, FDLs, and Disputed Treatments, by Month**

<b>Month</b>	<b>Applications Received*</b>	<b>Cases Closed*</b>	<b>Final Determination Letters (FDLs)<sup>†</sup></b>	<b>Treatment Disputes Resolved<sup>†</sup></b>
January	8	8	0	0
February	21	18	2	2
March	76	67	0	0
April	182	133	12	18
May	259	236	46	86
June	353	294	68	113
July	4,589	3,230	91	167
August	13,791	9,317	157	315
September	12,164	9,473	189	393
October	14,765	11,375	509	1,181
November	13,186	9,893	998	2,126
December	13,888	9,907	1,651	3,404
<b>Total</b>	<b>73,282</b>	<b>53,951</b>	<b>3,723</b>	<b>7,805</b>

\* Based on IMR applications submitted as of December 31, 2013.

<sup>†</sup> Based on FDLs issued as of December 31, 2013.

### Appendix C. WCIS Claims and Closed IMR Cases by Geographic Region

Geographic Region	IMR Closed Cases (N)	IMR Closed Cases (%)	WCIS 2013 DOI Claims (N)	WCIS 2013 DOI Claims (%)	Represented Closed Cases (N)	Represented Closed Cases (%)
Bay Area	8,414	16%	109,329	19%	3,415	41%
Central Coast	3,706	7%	35,528	6%	1,662	45%
Central Valley	4,848	9%	58,998	10%	2,247	46%
Eastern Sierra Foothills	949	2%	9,733	2%	397	42%
Inland Empire	9,524	18%	101,154	18%	3,974	42%
Los Angeles	14,628	27%	147,897	26%	6,659	46%
North State / Shasta	824	2%	7,901	1%	253	31%
San Diego	2,450	5%	44,883	8%	1,146	47%
Sacramento Valley - North	627	1%	27,807	5%	232	37%
Sacramento Valley - South	1,944	4%	6,313	1%	1,009	52%
Region Unknown	6,037	11%	17,116	3%	2,576	43%
<b>Total</b>	<b>53,951</b>	<b>100%</b>	<b>566,659</b>	<b>100%</b>	<b>23,570</b>	<b>44%</b>

## Appendix D. Final Status of IMR Closed Cases for Represented and Unrepresented Workers

Case Status	Injured Workers Represented	Percentage of Represented Cases	Injured Workers Unrepresented	Percentage of Unrepresented Cases
Ineligible	1,293	5%	10,455	34%
Terminated	2,506	11%	2,192	7%
Final Determination Letter Issued	19,771	84%	17,734	58%
<b>Total</b>	<b>23,570</b>	<b>100%</b>	<b>30,381</b>	<b>100%</b>

## Appendix E. IMR Decisions by Treatment Category

Treatment Category	Number of IMR Decisions	Percentage of IMR Decisions	UR Overturned	UR Upheld
Pharmaceuticals	3,502	45%	14%	86%
Durable Medical Equipment	838	11%	11%	89%
Physical and Occupational Therapy	796	10%	13%	87%
Diagnostic Test	561	7%	24%	76%
Surgery	536	7%	18%	82%
Radiology	470	6%	21%	79%
Evaluation and Management	323	4%	32%	68%
Acupuncture and Chiropractic Care	313	4%	11%	89%
Psychology and Psychiatry	126	2%	16%	84%
Facilities and Home Health Care	117	1%	11%	89%
Miscellaneous	223	3%	13%	87%
<b>Total</b>	<b>7,805</b>	<b>100%</b>		

## Appendix F. Non-Injection Pharmaceutical Treatment Categories with More than Ten IMR Decisions

Treatment Category	Number of IMR Decisions	Percentage of Pharmaceuticals	UR Overturned (N)	UR Overturned (%)	UR Upheld (N)	UR Upheld (%)
Skeletal muscle relaxants	352	12%	31	9%	321	91%
Narcotic analgesics*	306	10%	76	25%	230	75%
Not Classified	301	10%	13	4%	288	96%
Narcotic analgesic combinations*	286	10%	59	21%	227	79%
NSAID	281	9%	50	18%	231	82%
Compounded-Miscellaneous	269	9%	5	2%	264	98%
Proton Pump Inhibitors	248	8%	32	13%	216	87%
Miscellaneous anxiolytics, sedatives and hypnotics	102	3%	6	6%	96	94%
Benzodiazepines	101	3%	6	6%	95	94%
Anticonvulsant	100	3%	23	23%	77	77%
Topical anesthetics	82	3%	4	5%	78	95%
Miscellaneous analgesics	56	2%	8	14%	48	86%
Laxatives	40	1%	12	30%	28	70%
Serotonin-norepinephrine reuptake inhibitors	35	1%	12	34%	23	66%
Miscellaneous topical agents	33	1%	5	15%	28	85%
5HT3 receptor antagonists	32	1%	1	3%	31	97%
Analgesic combinations	30	1%	3	10%	27	90%
H2 antagonists	26	1%	4	15%	22	85%
Gamma-aminobutyric acid analogs	24	1%	5	21%	19	79%
Tricyclic antidepressants	20	1%	11	55%	9	45%
Vitamin	20	1%	6	30%	14	70%
Phenylpiperazine antidepressants	19		7	37%	12	63%
Selective serotonin reuptake inhibitors	18		6	33%	12	67%
Antimigraine agents	12		6	50%	6	50%
Nutraceutical Product	12		0	0%	12	100%
Carbonic anhydrase inhibitor anticonvulsants	10		1	10%	9	90%
<b>Total All Non-Injection Pharma</b>	<b>2,978</b>		<b>420</b>	<b>14%</b>	<b>2,558</b>	<b>86%</b>

\* Combined for analysis of opioids.

**Appendix G. IMR Decisions on Pharmaceutical Treatments, Injected and Non-Injected**

<b>Delivery Type</b>	<b>Total IMR Decisions</b>	<b>UR Overturned</b>	<b>UR Upheld</b>
<b>Non-Injected</b>	2,979	14%	86%
<b>Injected</b>	523	15%	85%
Steroid	213	21%	79%
Botox	11	9%	91%
Miscellaneous Block	90	10%	90%
Other	207	12%	88%
<b>Total</b>	<b>3,502</b>	<b>14%</b>	<b>86%</b>

## Appendix H. IMR Decisions on Surgical Treatments

Disputed Surgical Treatments	Total IMR Decisions	UR Overturned	UR Upheld
Surgical Procedures	366	17%	83%
Arthroscopic	79	20%	80%
Non-Arthroscopic	287	16%	84%
Ancillary Requests	170	21%	79%
<b>Total</b>	<b>536</b>	<b>18%</b>	<b>82%</b>

### Appendix H-1. IMR Decisions on Non-Arthroscopic Surgical Treatments by Body Part

Body Part	Total Decisions	UR Overturned
Spine	141	12%
Upper Extremities	41	17%
Lower Extremities	43	21%
Shoulder	17	6%
Hip and Pelvis	5	20%
Multiple	3	33%
Head	2	50%
Unknown	35	23%
<b>Total</b>	<b>287</b>	<b>16%</b>

### Appendix H-2. IMR Decisions on Arthroscopic Surgical Treatments by Body Part

Body Part	Total IMR Decisions	Percentage of URs Overturned
Shoulder	35	20%
Knee	29	24%
Forearm, Wrist, and Hand	5	-
Ankle and Foot	2	-
Hip	2	-
Lower Extremities	2	-
Upper Extremities	1	-
Unknown	3	67%
<b>Total</b>	<b>79</b>	<b>20%</b>

## Appendix I. Medical Evidence Cited in UR and IMR Decision Rationales, by Evidence Category\*

Source Cited in Rationale	Number of UR Citations	Percentage of UR Citations	Number of IMR Citations	Percentage of IMR Citations
MTUS	5,047	77.3%	6,006	81.0%
National Guideline	1,280	19.6%	1,111	15.0%
Journal	49	0.8%	58	0.8%
Medical Website	47	0.7%	85	1.1%
Professional Association	23	0.4%	41	0.6%
Other Guideline	20	0.3%	9	0.1%
Federal Agency	17	0.3%	31	0.4%
Non-CA State Guideline	14	0.2%	2	0.0%
Insurance Carrier Guideline	9	0.1%	6	0.1%
Medical Text	9	0.1%	22	0.3%
Fee Schedule	4	0.1%	0	0.0%
Non-US Institute	4	0.1%	4	0.1%
Expert Opinion	1	0.0%	6	0.1%
Labor Code	1	0.0%	2	0.0%
Drug-Package Insert	0	0.0%	20	0.3%
Standards of Practice	0	0.0%	14	0.2%
<b>Total Citations</b>	<b>6,525</b>	<b>100%</b>	<b>7,417</b>	<b>100%</b>

\* A total of 83.6% (6525) of claims administrators and 95% (7417) of physician reviewers cited medical evidence.

### Appendix I-1. UR and IMR Decision Rationales Citing No Medical Evidence\*

	<b>Number of UR Decisions</b>	<b>Percentage of UR Decisions*</b>	<b>Number of IMR Decisions</b>	<b>Percentage of IMR Decisions*</b>
No Authority Cited	916	71.5%	8	2.0%
Missing Medical Records	0	0%	8	2.0%
N/A <sup>†</sup>	366	28.5%	374	96.0%
<b>Total Decisions Citing No Authority<sup>1</sup></b>	<b>1282</b>	<b>100%</b>	<b>390</b>	<b>100%</b>

\* A total of 16.4% (1282) of claims administrators and 5% (390) of physician reviewers did not cite medical evidence.

<sup>†</sup> In these cases, the IMR application was an adjunct of another procedure. When a UR decision is upheld in the primary procedure, a separate IMR review is not conducted.

## Appendix J. IMR Decision Rationales Citing MTUS, by Treatment Category

	Physician Reviewer	Claims Administrator					
		MTUS cited? (#)			MTUS cited? (%)		
		Yes	No	Total	Yes	No	Total
Pharmaceuticals (N=3,502)	Yes	2,485	532	3,016	71%	15%	86%
	No	73	412	486	2%	12%	14%
	<b>Subgroup Total</b>	<b>2,558</b>	<b>944</b>	<b>3,502</b>	<b>73%</b>	<b>27%</b>	<b>100%</b>
Equipment (N=838)	Yes	354	134	488	42%	16%	58%
	No	38	312	350	5%	37%	42%
	<b>Subgroup Total</b>	<b>392</b>	<b>446</b>	<b>838</b>	<b>47%</b>	<b>53%</b>	<b>100%</b>
PT/OT (N=796)	Yes	541	123	664	68%	15%	83%
	No	26	106	132	3%	13%	17%
	<b>Subgroup Total</b>	<b>567</b>	<b>229</b>	<b>796</b>	<b>71%</b>	<b>29%</b>	<b>100%</b>
Diagnostic Tests (N=561)	Yes	321	112	433	57%	20%	77%
	No	32	96	128	6%	17%	23%
	<b>Subgroup Total</b>	<b>353</b>	<b>208</b>	<b>561</b>	<b>63%</b>	<b>37%</b>	<b>100%</b>
Surgery (N=536)	Yes	207	68	275	39%	13%	51%
	No	36	225	261	7%	42%	49%
	<b>Subgroup Total</b>	<b>243</b>	<b>293</b>	<b>536</b>	<b>45%</b>	<b>55%</b>	<b>100%</b>
Radiology (N=470)	Yes	260	103	363	55%	22%	77%
	No	24	83	107	5%	18%	23%
	<b>Subgroup Total</b>	<b>284</b>	<b>186</b>	<b>470</b>	<b>60%</b>	<b>40%</b>	<b>100%</b>
Evaluation and Management (N=323)	Yes	133	68	201	41%	21%	62%
	No	33	89	122	10%	28%	38%
	<b>Subgroup Total</b>	<b>166</b>	<b>157</b>	<b>323</b>	<b>51%</b>	<b>49%</b>	<b>100%</b>
Acupuncture and Chiropractic Care (N=313)	Yes	261	39	300	83%	12%	96%
	No	2	11	13	1%	4%	4%
	<b>Subgroup Total</b>	<b>263</b>	<b>50</b>	<b>313</b>	<b>84%</b>	<b>16%</b>	<b>100%</b>
Psychology and Psychiatry (N=126)	Yes	76	19	95	60%	15%	75%
	No	11	20	31	9%	16%	25%
	<b>Subgroup Total</b>	<b>87</b>	<b>39</b>	<b>126</b>	<b>69%</b>	<b>31%</b>	<b>100%</b>
Facilities and Home Health Care (N=117)	Yes	40	24	64	33%	21%	54%
	No	3	50	53	3%	44%	46%
	<b>Subgroup Total</b>	<b>42</b>	<b>75</b>	<b>117</b>	<b>36%</b>	<b>64%</b>	<b>100%</b>
Miscellaneous (N=223)	Yes	67	39	106	30%	17%	48%
	No	24	93	117	11%	42%	52%
	<b>Subgroup Total</b>	<b>91</b>	<b>132</b>	<b>223</b>	<b>41%</b>	<b>59%</b>	<b>100%</b>
All Treatment Categories (7,805)	Yes	4,745	1,261	6,006	61%	16%	77%
	No	302	1,497	1,799	4%	19%	23%
	<b>All Disputed Treatments</b>	<b>5,047</b>	<b>2,758</b>	<b>7,805</b>	<b>65%</b>	<b>35%</b>	<b>100%</b>

**Appendix J-1. Reliance on MTUS in Overturning UR Decisions, by Treatment Category**

	Physician Reviewer	Claims Administrator		
		Yes	No	All Treatments
<b>Pharmaceuticals (N=3,502)</b>	Yes	14%	16%	14%
	No	11%	14%	14%
	<b>Subgroup Total</b>	<b>14%</b>	<b>15%</b>	<b>14%</b>
<b>Equipment (N=838)</b>	Yes	12%	10%	11%
	No	13%	9%	10%
	<b>Subgroup Total</b>	<b>12%</b>	<b>10%</b>	<b>11%</b>
<b>PT/OT (N=796)</b>	Yes	13%	20%	14%
	No	23%	8%	11%
	<b>Subgroup Total</b>	<b>13%</b>	<b>14%</b>	<b>13%</b>
<b>Diagnostic Test (N=561)</b>	Yes	26%	31%	27%
	No	9%	10%	10%
	<b>Subgroup Total</b>	<b>25%</b>	<b>22%</b>	<b>24%</b>
<b>Surgery (N=536)</b>	Yes	17%	12%	16%
	No	19%	21%	21%
	<b>Subgroup Total</b>	<b>17%</b>	<b>19%</b>	<b>18%</b>
<b>Radiology (N=470)</b>	Yes	19%	23%	20%
	No	25%	25%	25%
	<b>Subgroup Total</b>	<b>20%</b>	<b>24%</b>	<b>21%</b>
<b>Evaluation and Management (N=323)</b>	Yes	34%	38%	35%
	No	36%	22%	26%
	<b>Subgroup Total</b>	<b>34%</b>	<b>29%</b>	<b>32%</b>
<b>Acupuncture and Chiropractic Care (N=313)</b>	Yes	11%	3%	10%
	No	0%	27%	23%
	<b>Subgroup Total</b>	<b>11%</b>	<b>8%</b>	<b>11%</b>
<b>Psychology and Psychiatry (N=126)</b>	Yes	20%	11%	18%
	No	9%	10%	10%
	<b>Subgroup Total</b>	<b>18%</b>	<b>10%</b>	<b>16%</b>
<b>Facilities and Home Health Care (N=117)</b>	Yes	8%	4%	6%
	No	67%	14%	17%
	<b>Subgroup Total</b>	<b>12%</b>	<b>11%</b>	<b>11%</b>
<b>Miscellaneous (N=223)</b>	Yes	15%	15%	15%
	No	4%	12%	10%
	<b>Subgroup Total</b>	<b>12%</b>	<b>13%</b>	<b>13%</b>
<b>All Treatment Categories (7,805)</b>	Yes	15%	18%	16%
	No	17%	15%	15%
	<b>All Disputed Treatments</b>	<b>15%</b>	<b>16%</b>	<b>16%</b>

## Appendix K. Categories of Disputed Treatments in 50 FDLs Reviewed

Treatment Category	Disputed Treatments
Pharmaceuticals (including spinal injections)	76
Durable Medical Equipment	14
Physical Therapy	8
Evaluation and Management	7
Diagnostic Test	7
Radiology	6
Acupuncture and Chiropractic Care	6
Surgery	5
Laboratory Test	4
Psychiatric/Psychological Treatment	3
Work Hardening, Functional Capacity Evaluation	2
Home Health Care	2
Electro-stimulation	2
Massage	1
Ergonomic Evaluation	1
Transport	1
Case Management Services	1
Speech Therapy	1
<b>Total</b>	<b>147</b>

**Appendix L. Lack of Documentation in 50 FDLs Reviewed, by Documentation Category\***

<b>Documentation Category</b>	<b>Number of FDLs Lacking Documentation</b>	<b>Percentage of FDLs Lacking Documentation</b>
<b>Guideline Clinical Criteria Not Documented</b>	<b>49</b>	<b>67.1%</b>
Pharmaceutical	17	23.3%
DME	10	13.7%
Other	22	30.1%
<b>Treatment Benefit Not Documented</b>	<b>15</b>	<b>20.6%</b>
Pharmaceutical	12	16.4%
Other	3	4.1%
<b>Improved Function Not Documented</b>	<b>7</b>	<b>9.6%</b>
Pharmaceutical	6	8.2%
Chiropractic Care	1	1.4%
<b>Disputed Treatment Detail Missing</b>	<b>2</b>	<b>2.8%</b>
Pharmaceutical	1	1.4%
Surgery – Spinal Fusion	1	1.4%
<b>Total</b>	<b>73</b>	<b>100.0%</b>

\* Out of a total of 147 IMR decisions reviewed in the selected 50 FDLs, 120 decisions upheld the UR decision; of these, 73 decisions cited a lack of documentation.