California Workers' Compensation Institute
1333 Broadway Suite 510, Oakland CA 94612
(510) 251-9470

BULLETIN

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A new CWCI study shows that the number of inpatient stays in the California workers' compensation system fell 31.2 percent between 2008 and 2016, coinciding with declining claim volume, increased use of ambulatory surgery centers, tighter control through utilization review and independent medical review, technological and procedural advances that allow more services to be provided in outpatient settings, and the elimination of spinal implant pass-through payments.

The analysis uses California Office of Statewide Health Planning and Development (OSHPD) data on inpatient hospitalizations with 2008-2016 discharge dates to compare the volume and distribution of workers' compensation inpatient stays to those paid by Medicare, Medi-Cal and private health plans. In addition, the study identifies the top 10 inpatient diagnosis-related group (MS-DRG) codes used to describe the workers' compensation discharges; measures changes in the volume of inpatient stays related to spinal fusions, and knee and hip replacement surgeries; and notes the 10 hospitals in California with the highest proportion of workers' compensation patients in their inpatient population.

Workers' compensation is much smaller than the other medical payment systems and has consistently accounted for less than 1 percent of all inpatient stays in California. As inpatient stays by injured workers declined in recent years, and Medi-Cal discharges increased sharply with the rollout of the Affordable Care Act (ACA) plans and the absorption of the state's Healthy Families program in 2014, workers' compensation's share of the state's inpatient hospitalizations fell from 0.7 percent in 2008 to just 0.5 percent in 2014, 2015, and 2016. As shown below, from 2008 through 2016 the number of inpatient stays covered by workers' compensation and private plans declined 31.2 percent and 19.6 percent respectively, while Medicare hospitalizations increased 2.4 percent, and Medi-Cal hospitalizations climbed 19.6 percent -- with the big jump in that system beginning in 2014.

Number of California Inpatient Hospitalization Discharges: WC vs. Other Payers 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
WC	24,093	22,410	22,416	22,165	21,532	20,336	18,580	17,558	16,576
Medi-Cal	1,027,877	1,036,376	1,035,387	1,022,199	1,013,248	1,000,269	1,164,353	1,202,280	1,229,846
Medicare	1,250,549	1,256,097	1,286,035	1,285,300	1,267,634	1,257,843	1,225,784	1,270,642	1,281,041
Private Cov.	1,397,452	1,351,040	1,288,686	1,257,356	1,222,199	1,163,669	1,142,783	1,143,359	1,123,167

The OSHPD data also show that surgical stays, rather than non-surgical "medical stays," represent a much bigger share of workers' compensation hospitalizations, accounting for 72.5 percent of injured worker inpatient discharges versus 39.3 percent for private plans, 27.4 percent for Medicare, and 23.7 percent for Medi-Cal. Surgical admissions for all four payer groups have declined in recent years as many procedures have been moved from inpatient to outpatient facilities, and advances in technology and techniques have allowed procedures such as knee replacements (which was the top workers' compensation inpatient service in 2016) and spinal procedures to be performed on an outpatient basis.

The MS-DRG codes in the discharge data underscore the very different mix of inpatient stays in workers' compensation compared to the other systems. Nine of the top 10 MS-DRGs in workers' compensation were surgical, the only exception being MS-DRG 552 (Medical Back Problems without Major Complication or Comorbidity) which is classified as a medical stay. In addition, six of the top 10 workers' compensation MS-DRGs were for back and neck issues and four were spinal fusions. While those 10 MS-DRGs together accounted for 45 percent of the workers' compensation hospitalizations, in Medicare they accounted for just 7 percent, in private plans they represented about 5 percent, and in Medi-Cal they represented only 1.5 percent. The differences in the types of inpatient care provided in workers' compensation were also evident when the severity levels associated with the top 10 MS-DRGs were included to identify additional detail about the inpatient services rendered. That analysis showed that surgical services in workers' compensation are heavily concentrated among a relatively small number of MS-DRGs, led by major joint replacement or reattachment of lower extremity, which has consistently been the single most common discharge in workers' compensation.

Looking at the distribution of Major Diagnostic Categories (MDCs) associated with the 2008–2016 workers' compensation inpatient hospitalizations shows they are also heavily concentrated, primarily among diseases of the musculoskeletal system and connective tissue, which together accounted for about two-thirds of all inpatient stays across the 9-year span of the study, while the top five MDCs represented between 80.1 percent and 82.8 percent of all injured worker inpatient hospitalizations. Among the musculoskeletal MDCs, spinal fusions were more prevalent in workers' compensation than in the other systems, while lower extremity joint replacement procedures were more prevalent under Medicare and private coverage.

A review of the yearly volume and the proportional change in the implant-eligible spinal surgeries in workers' compensation shows a 35.7 percent reduction in implant-eligible back surgeries between 2008 and 2016, with most of that decline coinciding with the adoption of the Independent Medical Review process which allows physicians rather than judges to determine the medical necessity of a disputed treatment request using evidence-based medicine standards, and the phase-out of the duplicate pass-through payments for spinal hardware that had been allowed under the workers' compensation fee schedule. The phase-out of the pass-through payments began in 2013 and was completed in 2014 following passage of SB 863 and the high profile scandal involving the Pacific Hospital of Long Beach (which had been the leading facility for workers' compensation implant-eligible spinal fusions) and the indictment of its former owner. Following the adoption of IMR and the phase-out of the spinal implant pass-through payments, the number of implant-eligible spinal surgeries performed on California injured workers fell from 4,978 surgeries in 2012 to 3,258 in 2016. As a result, these surgeries declined from 23.1 percent of all workers' compensation hospitalizations in 2012 to 19.7 percent in 2016. In contrast, implant-eligible spinal surgeries, which represent a much smaller share of the inpatient care in the other systems (1.3 percent of 2016 hospitalizations in Medicare and private coverage, 0.4 percent in Medi-Cal) also showed much different growth patterns over the 9-year study period. While the volume of workers' compensation implant-eligible surgeries declined by more than one third from 2008 to 2016, private plans, which already had utilization review programs in place to curb unnecessary surgeries and other treatment years before workers' compensation, registered only a 6.4 percent decline over that same span, while Medicare, which does not have utilization review, saw a 58.6 percent increase in these surgeries, and Medi-Cal, where enrollment skyrocketed under the ACA, saw the number of implant-eligible spinal surgeries increase nearly 142 percent.

Although workers' compensation accounted for only 0.5 percent of all 2016 inpatient stays in California, for a small subset of hospitals injured workers account for a significantly higher share of the hospital's inpatient stays. The list of the top 10 hospitals based on workers' compensation hospitalizations as a proportion of their total inpatient stays includes three that are registered with Medicare as Long-Term Care Hospitals (as opposed to acute care hospitals), and as such they are not subject to the Workers' Compensation Inpatient Facility Fee Schedule. For all three of these long-term care facilities, the vast majority of workers' compensation inpatient discharges (86.2 percent to 100 percent) involved surgeries, while most of their inpatient stays paid by Medicare involved medical (non-surgical) discharges. Data on the average length of stay for each of the long-term care facilities also reveals differences in the workers' compensation diagnoses and patient populations compared to the other payer groups. For example, in 2016, the average duration of a surgical stay for an injured worker at one of these three Long-Term Care hospitals ranged between 3.1 to 5.3 days; for private coverage patients the average length of stay for a surgical admission ranged from 2.9 to 91.9 days; for Medicare patients, most of whom are older, the average surgical stay was 26.2 to 37.6 days; and for the Medi-Cal population, which would include more children and a higher concentration of low-income patients, the average was between 54.8 and 272.9 days in the hospital, or in one case, they were not accepted for admissions.

CWCI has released its study, including additional background, analyses, and graphics, in a Research Update Report, **"California Workers' Compensation Inpatient Hospitalization Trends."** Institute members and subscribers can log in to access the report in the Research section at www.cwci.org, while others can purchase a copy for $21 at www.cwci.org/store.html.

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