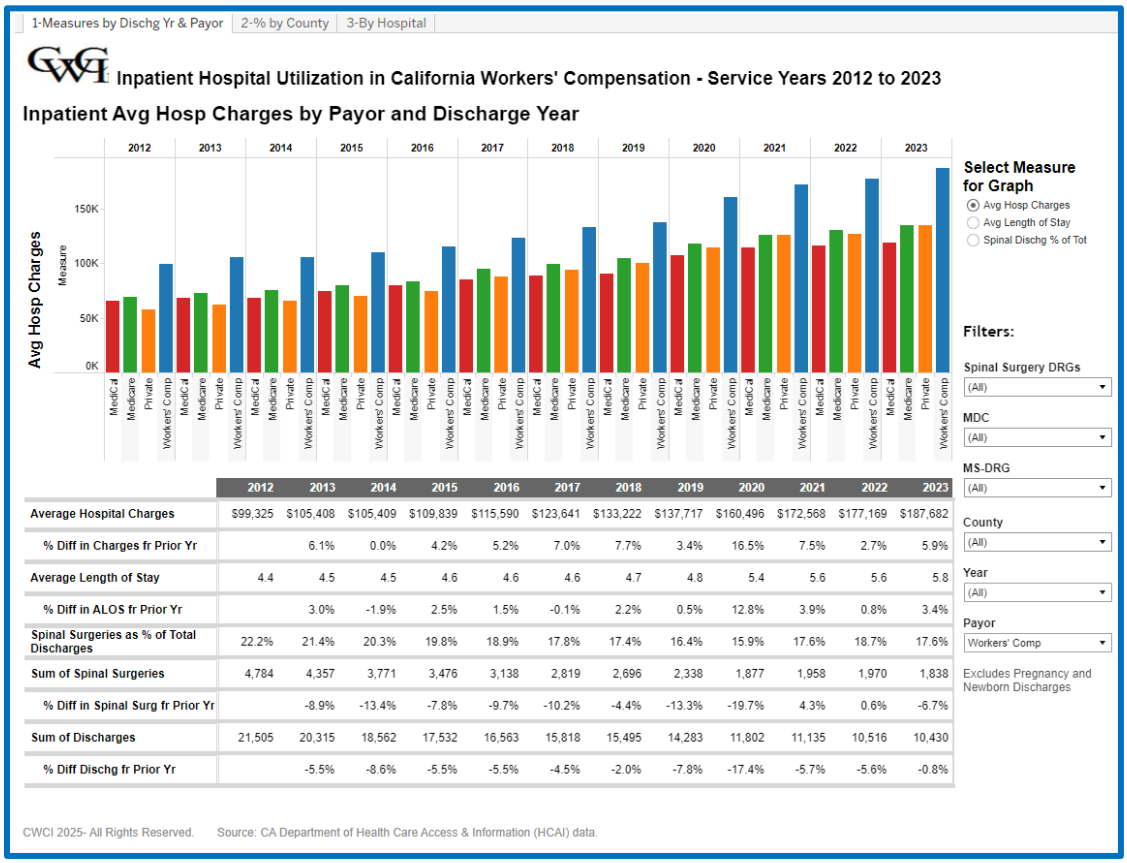
California Workers' Compensation Institute

Interactive Research

Adam Russell **January 2025**

CWCI's Inpatient Hospital Utilization Application



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Average Hospital Charges	$99,325	$105,408	$105,409	$109,839	$115,590	$123,641	$133,222	$137,717	$160,496	$172,568	$177,169	$187,682
% Diff in Charges fr Prior Yr		6.1%	0.0%	4.2%	5.2%	7.0%	7.7%	3.4%	16.5%	7.5%	2.7%	5.9%
Average Length of Stay	4.4	4.5	4.5	4.6	4.6	4.6	4.7	4.8	5.4	5.6	5.6	5.8
% Diff in ALOS fr Prior Yr		3.0%	-1.9%	2.5%	1.5%	-0.1%	2.2%	0.5%	12.8%	3.9%	0.8%	3.4%
Spinal Surgeries as % of Total Discharges	22.2%	21.4%	20.3%	19.8%	18.9%	17.8%	17.4%	16.4%	15.9%	17.6%	18.7%	17.6%
Sum of Spinal Surgeries	4,784	4,357	3,771	3,476	3,138	2,819	2,696	2,338	1,877	1,958	1,970	1,838
% Diff in Spinal Surg fr Prior Yr		-8.9%	-13.4%	-7.8%	-9.7%	-10.2%	-4.4%	-13.3%	-19.7%	4.3%	0.6%	-6.7%
Sum of Discharges	21,505	20,315	18,562	17,532	16,563	15,818	15,495	14,283	11,802	11,135	10,516	10,430
% Diff Dischg fr Prior Yr		-5.5%	-8.6%	-5.5%	-5.5%	-4.5%	-2.0%	-7.8%	-17.4%	-5.7%	-5.6%	-0.8%

CWCI's Inpatient Hospital Utilization Application[1] is an interactive data application that utilizes California inpatient hospital discharge data for calendar years 2012 through 2023 compiled by the California Department of Health Care Access and Information (HCAI).[2]

The Application allows CWCI members to identify inpatient utilization and cost trends within California workers' compensation and to compare the volume and types of inpatient hospitalizations covered by workers' compensation to those that are paid under Medicare, Medi-Cal, and private coverage. The comparative data includes back surgery rates, average lengths of stay, and hospital charges for spinal fusions, as well as regional variations and hospital-specific data for 2012-2023 spinal fusions.

[1] Members can access the Application at https://www.cwci.org/InptUtil.html

[2] HCAI was the Office of Statewide Health Planning and Development (OSHPD) prior to Governor Newsom's 2021-2022 budget. https://hcai.ca.gov/oshpd-becomes-the-department-of-health-care-access-and-information/

This report highlights changes to inpatient utilization by payor type between calendar years 2012 - 2023 and outlines the measures and filters available within the Application.[3]

Summary of Key Findings

- Patients receiving inpatient care under the California workers' compensation system accounted for 0.3% of all 2023 inpatient discharges in the state,[4] a level consistent with prior reports.
- The number of workers' compensation inpatient discharges statewide declined in each of the past 12 years, decreasing by 51.5% from 21,505 in 2012 to 10,430 in 2023, including a 0.8% decline between 2022 and 2023. In contrast, the number of inpatient discharges across all payors fluctuated during that same 12-year span, resulting in a net increase of 4.8% between 2012 and 2023, including a 3.5% increase from 2,562,483 discharges in 2022 to 2,651,873 in 2023. Most of the growth in the total number of discharges between 2012 and 2023 occurred in Medi-Cal, which underwent a massive expansion in enrollment following the enactment of the Affordable Care Act.
- The number of workers' compensation inpatient spine surgeries declined by 61.6% from 4,784 surgeries in 2012, the last year of duplicate payments for spinal hardware, to 1,838 in 2023. The latest results show workers' compensation spinal surgeries declined 6.7% between 2022 (1,970) and 2023 (1,838), while the total number of spinal surgeries across all payors increased 1.4% from 33,135 in 2022 to 33,585 in 2023.
- Average inpatient hospital charges for workers' compensation increased 5.9% from $177,169 in 2022 to $187,682 in 2023, while average charges for all payors increased 3.7% from $125,712 in 2022 to $130,419 in 2023.
- In 2023, the top ten hospitals (out of a total of 328 hospitals) delivering workers' compensation inpatient services in California accounted for 1 in 6, or 16.9%, of all workers' compensation hospitalizations.

Metrics Available in the Application:

The Inpatient Hospital Utilization Application contains three tabs which are shown across the top of the view.

[3] A follow-up report will examine inpatient and outpatient surgical characteristics and counts among major surgery categories and trends in the use of neuromonitoring.
[4] In calculating the percentage of statewide inpatient discharges represented by workers' compensation the Institute used the HCAI figure for total inpatient discharges in California for 2023, which includes hospitalizations from the four payor systems (Medicare, Medi-Cal, private coverage, and workers' compensation) covered in this report as well as others (e.g, self-pay, other government programs, etc.).

The first tab contains a graph and data table showing average hospital charges, average length of stay, and spinal surgery discharges as a percentage of total discharges. The second tab provides heat maps of the different measures and the number of inpatient discharges at the county level. The third tab shows various measures at the facility level.

The balance of this report includes descriptions of the tabs, further details on the inpatient discharge data, and information on where to get help in using the Application.

Tab 1: Measures by Discharge Year and Payor

The **Select Measure for Graph** set of radio buttons allows the user to select one of the three displayed measures within the corresponding **Column Graph**: average hospital charges, average length of stay, or spinal surgery discharges as a percentage of total discharges. Among the available filters the user can choose whether to include or omit **Spinal Surgery DRGs** (the Diagnosis Related Group classification system used to group inpatient hospital stays by procedure) and make selections for specific **MDC** (Major Diagnostic Category) and **MS-DRG** (Medicare Severity Diagnosis Related Group). There are also filters to show the results for a specific **County**, **Year**, or **Payor.**

A **Column Graph** shows by default the average hospital charges based on the selection from **Select Measure for Graph**. The graph shows the upward development in average hospital charges across all payors, with the continuation of higher average hospital charges in workers' compensation relative to the other payors when including 2023 discharge data. When changing the measure to average length of stay we notice that MediCal and Medicare continue to have longer stays than private and workers' compensation coverage.

The **Table** below the Column Graph can be modified based on changes to the filters. For example, we can change the county filters to determine which counties drove the 5.9% increase in workers' compensation average hospital charges during 2023. By clicking on the County filter, we can see that Los Angeles and San Diego Counties had a significant impact on the 2023 increase. Los Angeles County had the most discharges during 2023 and a 14.1% increase in average hospital charges, but only a 0.8% increase in discharges. San Diego County had the third most discharges and a 7.4% increase in average hospital charges, along with a 4.7% decrease in discharges. The other filters can be modified to determine the impact of certain MDC or MS-DRG codes.

Tabs 2 and 3: Measures at County and Facility Level

Tab 2 includes a series of **Heat Maps** and Tab 3 includes a series of **Bar Charts**. Both tabs allow for analysis of the measures defined in Tab 1 at the county and facility level, respectively, including filters for **Spinal Surgery DRGs**, **MDC**, **MS-DRG**, and **Payor** as defined above for Tab 1. Both tabs include filter options for service years. In tab 2 users can choose to view results spanning one or more service years by using the two separate drop-down filters under **Select Year From and To:**; in tab 3 there is a single drop-down menu labeled **Service Year** from which users can choose to view results for a specific year. Tab 3 also includes a **County** filter.

From changing the select years on Tab 2 one can observe notable changes to the heat map on workers' compensation average length of stay from 2022 to 2023, whereas the other three measures remain relatively stable. The average length of stay in northern counties, including Humboldt, Mendocino, and Shasta, show increased average stays during 2023 compared to 2022, whereas southern counties, including Kern, Riverside, and San Bernardino show decreasing average stays. The average length of stay for workers' compensation discharges among the three northern counties increased from 3.7 in 2022 to 8.0 in 2023, whereas in the three southern counties the average length of stay decreased from 6.7 in 2022 to 5.6 in 2023 (these figures can be seen in Tab 1 when filtering on these two sets of three counties). Tab 3 can be used to determine which facilities drove the changes within specific counties. In Tab 3 we can filter on these two sets of three counties and determine that changes to average length of stay from 2022 to 2023 were driven by significant changes in average stays at certain facilities that had limited discharge volume.

How to Access the Application

Using your registered username and password, log into the Research section of our website (www.cwci.org), scroll down to "Inpatient Hospital Utilization Application – Updated 1-16-25" and click on the title. If you need to register for member access to our website, call 510-251-9470.

About the Author

Adam Russell is a Research Associate at the California Workers' Compensation Institute.

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California Workers' Compensation Institute

The California Workers' Compensation Institute, incorporated in 1964, is a private, nonprofit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system. Additional information about CWCI research and activities is available on the Institute's website (www.cwci.org). The Institute is not affiliated with the State of California.

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