



The Financial Impact of COVID-19 on California Hospitals: January 2020 Through June 2021

AUGUST 2021



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About the Authors

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Overview

In March 2020, most California acute care hospitals began postponing elective admissions and nonurgent care due to a statewide “shelter-in-place” order¹ and a predicted surge of COVID-19 patients. Across the state, hospital capacity was expanded from approximately 80,000 inpatient beds to nearly 130,000 as facilities began repurposing space and procuring additional equipment, supplies, and staff.² Meanwhile, a significant number of patients began to forgo care as economic activity and travel in the state dropped precipitously. These developments had immediate impacts on utilization, costs, and revenue in California’s hospitals, with outpatient services and emergency department (ED) visits falling by approximately 50% in the 60 days after the statewide order took effect.³

This report updates prior estimates of the impact of COVID-19 on utilization, costs, and revenue in California hospitals through the end of 2020.⁴ Utilization and financial data covering calendar years 2019 and 2020 for 355 acute care hospitals, as reported to the California Office of Statewide Health Planning and Development (OSHPD), are incorporated. These 355 facilities are classified as “comparable” by OSHPD and represent approximately 80% of hospital capacity in the state. Excluded from the analysis are Kaiser hospitals, which compose approximately 8% of statewide bed capacity, as well as state, long-term psychiatric, long-term care, and other noncomparable facilities. The analysis is supplemented with daily registration data representing approximately 40% of the volume of the state’s acute care facilities using proprietary data from Collective Medical Technologies (CMT). CMT data allowed for estimated trends in hospital inpatient admissions and emergency department visits through June 2021.

The findings show that while total patient volume in California’s acute care hospitals fell by 5% year over year, net patient revenue increased by \$1.3 billion, largely driven by increased revenue from the Medi-Cal program. After all revenues were aggregated and expenses were deducted, California hospitals reported a substantial decrease in total net income in 2020 compared to 2019. Still, net income remained positive in 2020 at \$3.47 billion compared to \$7.96 billion in 2019.

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Importantly, recent data covering the first half of 2021 show that hospital utilization is still below pre-COVID-19 levels — inpatient admissions are down 7% and ED visits are down 23% compared to 2019. Given this continuing gap and recent increases in California COVID-19 case rates, it is likely that hospital utilization for the entire year of 2021 will remain below 2019 levels. As a result, California hospitals are unlikely to see a return to pre-COVID-19 levels of profitability in the near future.

The COVID-19 Shutdown

Early in the COVID-19 pandemic, California Governor Gavin Newsom issued a statewide “shelter-in-place” order and requested that hospitals discontinue elective admissions and nonurgent care. These policies were deemed necessary to free up hospital capacity for the projected surge, as by design, hospitals and health systems operate with limited spare capacity.

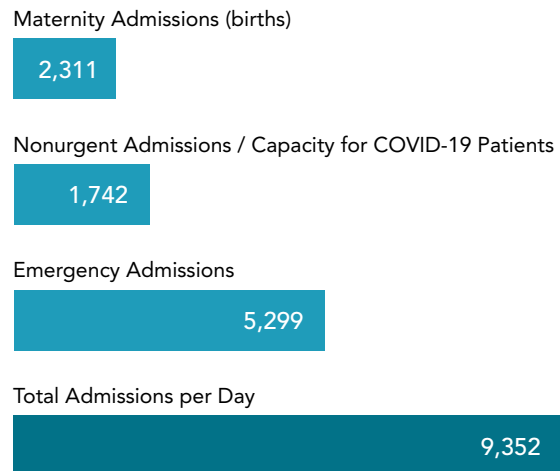
In 2019, the 355 acute care hospitals in this analysis operated with an average occupancy rate of 60% of “licensed bed” capacity and 63% of “available bed” capacity. Hospital occupancy rates fluctuate throughout the year related to seasonal factors. It is worth noting that before the COVID-19 pandemic, California’s acute care hospitals had experience managing surges of patients during virulent seasonal flu seasons — one as recently as the winter of 2017–18.⁵ Although this flu surge was much smaller than surges associated with the COVID-19 pandemic, a number of hospitals did postpone elective admissions to open up capacity for urgent flu-related admissions.⁶

While California’s population increased more than 9% between 2002 and 2019, total licensed hospital bed capacity declined by 6%, reflecting, in part, growing substitution of hospital outpatient care for inpatient care. At the same time, a growing share of patients admitted to California hospitals for inpatient care accessed that care through a hospital’s emergency room. As Exhibit 1 shows, California’s inpatient hospital system is now largely devoted to serving patients with urgent and emergency medical needs, leaving little excess capacity for unplanned surges of patients requiring longer-term inpatient hospitalization.

On average, across all California hospitals in 2019, there were 9,352 patients admitted each day, of which more than 7,000 (fully 75%) were admitted through hospital EDs and/or for maternity/childbirth.⁷

This general admission pattern results in limited capacity for nonemergency patients — hypothetically only slightly more than 2,300 COVID-19 patients could be admitted each day across all California hospitals (25% of daily inpatient bed capacity under normal operating conditions), assuming all nonurgent patient admissions are deferred and that emergency patients continue to be admitted at 2019 rates.

Exhibit 1. Inpatient Admissions per Day, by Status, California Hospitals, 2019



Note: Data include all licensed California hospitals (N = 478).

Source: *2019 Calendar Year Hospital Utilization Pivot*, California Health and Human Services Agency (CHHS), December 15, 2020.

COVID-19 Surges

California experienced two major surges of COVID-19-related hospital inpatient admissions over the past year: one during the summer of 2020 and one in the winter months of 2020 and 2021.

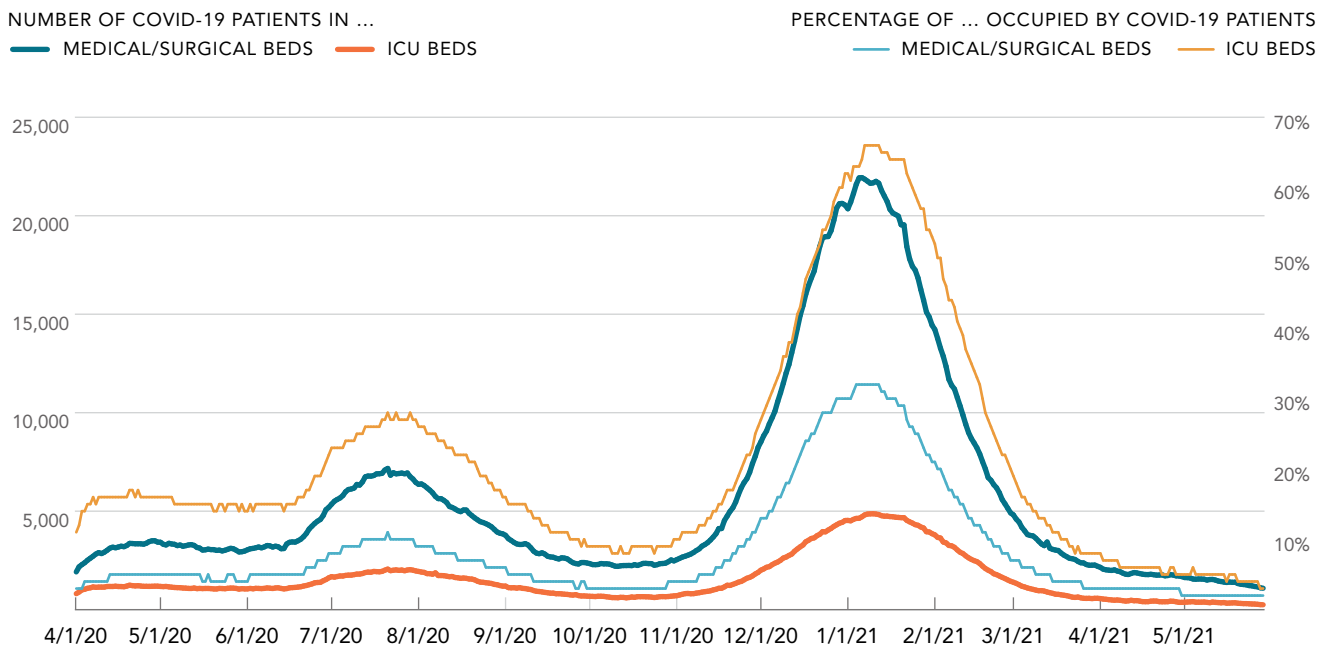
The summer 2020 surge in COVID-19 patients in California hospitals peaked in early July with 7,000 COVID-19 patients occupying general medical/surgical beds and nearly 2,000 COVID-19 patients in intensive care unit (ICU) beds across the state. Cases surged again in late December 2020 and the early months of 2021, far eclipsing the summer peak. COVID-19 patients occupied 21,750 medical/surgical beds and nearly 4,770 ICU beds in January 2021.⁸

While the two surges were substantial and dramatic, Exhibit 2 suggests that the state's total inpatient hospital bed capacity withstood the demands of both.

However, demand for ICU beds by COVID-19 patients during the two surges had a much greater impact on total ICU bed capacity — at the peak, almost 70% of ICU beds were occupied by COVID-19 patients, leaving very limited ICU capacity for other patients needing an intensive care bed.⁹

It is important to note that there was substantial variability in the surge levels across different parts of California. Many parts of California experienced small surges while other areas, such as Los Angeles, saw COVID-19 admissions push some local hospitals to or above full capacity during the winter surge. The Los Angeles County Emergency Medical Services Agency reported that during the peak of the January 2021 surge, COVID-19 patients used 54% of all medical/surgical beds and 83% of ICU beds.¹⁰

Exhibit 2. Number of COVID-19 Inpatients and Percentage of Beds Occupied by COVID-19 Patients, by Bed Type, April 1, 2020 to May 29, 2021



Note: ICU is intensive care unit.

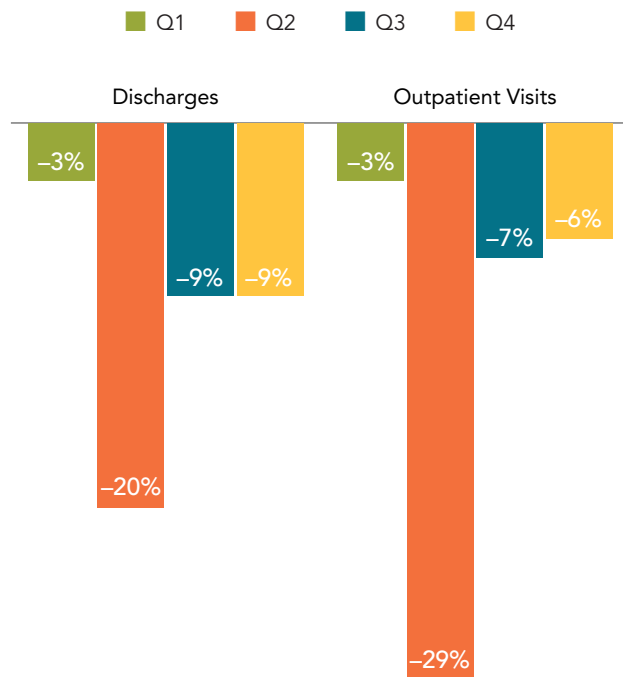
Source: "COVID-19 Hospitalization Tracking Project: Download Data," University of Minnesota.

COVID-19 Impacts Hospital Utilization

Total Hospital Discharges and Outpatient Visits Below 2019 Levels

Hospital utilization in California declined sharply in the second quarter of 2020, and while it rebounded some, utilization never returned to 2019 levels for the remainder of the year. Hospital discharges fell by 20% in Q2 of 2020 and remained 9% below 2019 levels for Q3 and Q4 of 2020 (Exhibit 3). Hospital outpatient visits, both emergency department and nonemergency visits, fell by 29% in Q2 of 2020 and remained 6% to 7% below 2019 levels for Q3 and Q4 of 2020.

Exhibit 3. Change in Hospital Discharges and Outpatient Visits, by Quarter, 2019–20



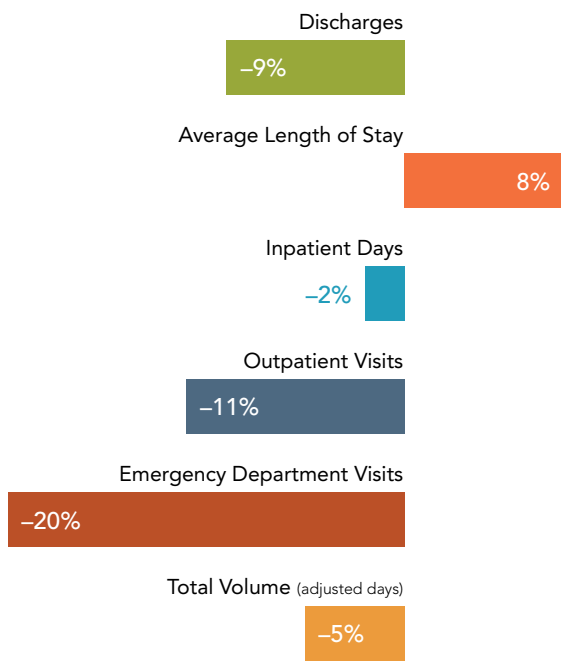
Note: Includes California comparable hospitals (N = 355), excludes Kaiser.
Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

Change in Hospital Case Mix

While overall hospital patient volume was down in 2020 compared to 2019, the mix of patients utilizing California’s hospitals changed as a result of COVID-19. Interviews with hospital officials conducted for this study suggest that COVID-19 affected patient mix in two ways. First, there was a reduction in elective admissions as a result of public health guidance to discontinue elective services for part of the year. Compounding this, the resumption of elective admissions was delayed in many hospitals due to a shortage of personal protective equipment (PPE) and COVID-19-related reconfigurations. In addition, many patients decided to delay care even when hospitals restored elective capacity, and there were fewer emergency admissions due to reduced auto accidents and other trauma because of the shutdown and reduced outdoor activity.¹¹

Partially offsetting the decline in admissions was new utilization related to COVID-19 patients who were treated in hospital EDs and utilized inpatient medical/surgical and intensive care beds. The net result is that average case-mix severity and inpatient lengths of stay increased in 2020 compared to 2019. Exhibit 4 shows that the 9% decline in inpatient discharges was almost completely offset by an 8% increase in average length of inpatient stay, resulting in a slight decrease (2%) in total inpatient days in 2020 relative to 2019 (see page 7). Overall, total hospital volume, measured by adjusted hospital days, which takes into account both inpatient and outpatient volume, was down 5% for the year 2020. On the outpatient side, ED visit volume was far more affected by COVID-19 than other outpatient visits. This may suggest patients were more concerned with COVID-19 transmission in some settings than in others, and that ambulatory care declines were partially offset by the rapid increased adoption of telehealth services to replace in-person visits.

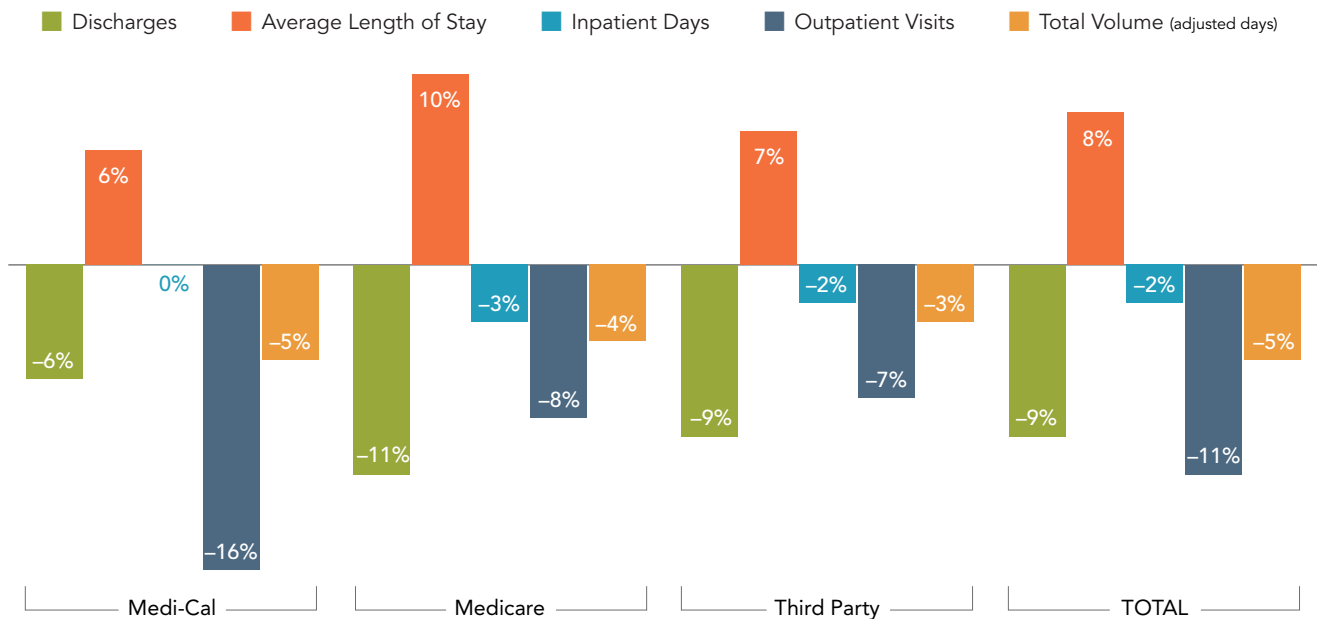
Exhibit 4. Change in Hospital Inpatient and Outpatient Use Relative to Pre-COVID-19 Levels, 2019–20



Hospital Utilization Declined for All Major Payer Groups

While all the major payers experienced a decline in utilization as a result of COVID-19, there is variation in terms of the magnitude of impacts. Medi-Cal experienced the largest drop in outpatient visits but the lowest drop in total inpatient days. Medicare discharges fell by 11%, the largest of any payer, and third-party commercially insured inpatient discharges dropped slightly less, by 9% (Exhibit 5). All payers experienced the changing case-mix effect caused by increased average length of stays, ranging from 6% to 10%. Combined, overall hospital volume, measured by total adjusted hospital days, decreased in a fairly narrow range across major payers, lower by 3% to 5% in 2020.

Exhibit 5. Changes in Hospital Inpatient and Outpatient Use Relative to Pre-COVID-19 Levels, by Major Payer, 2019–20



FIGURES 4 AND 5:

Notes: Data include California comparable hospitals (N = 355) and excludes Kaiser. *Adjusted days* is a measure to convert and add the value of outpatient services as an inpatient day equivalent (inpatient days × [gross patient revenue ÷ gross inpatient acute care revenue]). *Third party* refers to commercial, primarily employer sponsored health care coverage. All payer types include both fee-for-service and managed care plans.

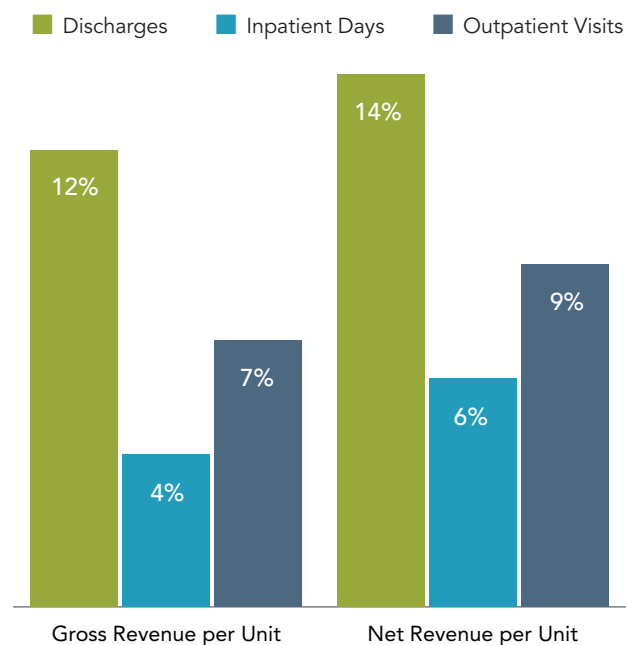
Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

COVID-19 Impacts Both Hospital Gross Revenue and Net Revenue

Increased Case-Mix Severity and Longer Lengths of Stay Contributed to Higher Gross and Net Revenues

As shown in Exhibit 6, gross revenue per discharge in 2020 was 12% higher than in 2019. Gross revenue per inpatient day was also higher, reflecting longer average lengths of stay in 2020. Gross revenue per outpatient visit increased by 7% in 2020 relative to 2019. Net revenue per unit of output (e.g., discharge, day, visit) followed a pattern similar to gross revenue except that per unit net revenue growth was approximately two percentage points higher for all three per unit measures.

Exhibit 6. Change in Inpatient and Outpatient Gross and Net Revenue per Unit of Output, 2019–20



Note: Includes California comparable hospitals (N = 355), excludes Kaiser.
Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

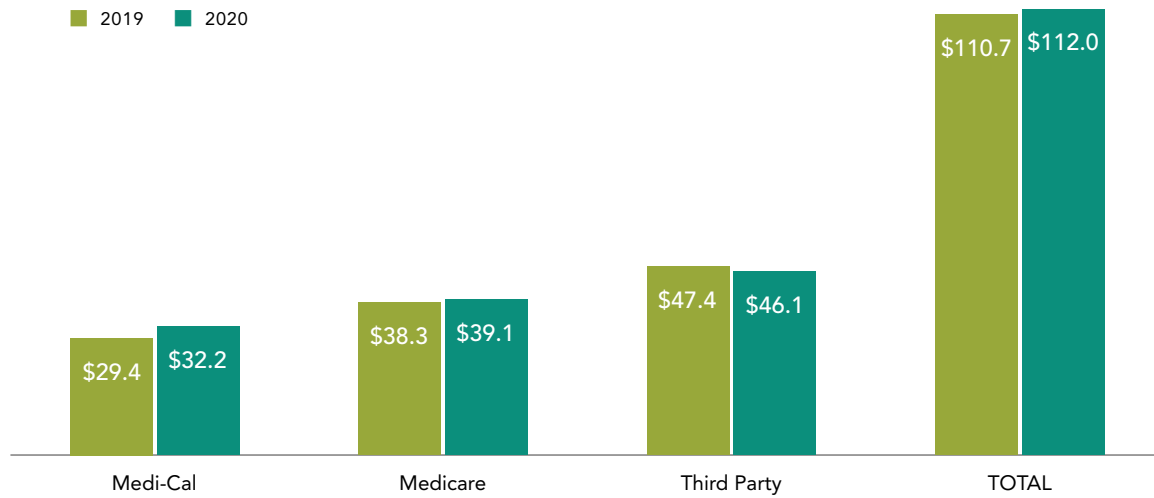
Several factors likely contributed to per unit increases in both gross (charges) and net revenue per unit in 2020 compared to 2019. Increased case-mix severity in 2020 compared to 2019 resulted in longer average lengths of stay and an increase in gross charges per patient. In addition, hospitals typically increase their chargemaster rates at the start of each year, generally from 2% to 8% (about half the hospitals in this analysis had their new fiscal year begin in January 2020), and hospitals typically will negotiate increases in prices (net revenue per unit) from one year to the next or have increases built into multiyear contracts.

Despite Decline in Hospital Use, Net Patient Service Revenue Grew Slightly from 2019 Levels

While overall utilization, as measured by adjusted days, declined for all major payers, total net patient service revenue from all payers grew by \$1.3 billion, or 1%, compared to 2019 (Exhibits 7 and 8 on page 9). However, there is substantial variation in the change in net patient service revenue across the major payers. Net patient service revenue from third-party payers declined by more than \$1.3 billion, or 3%, compared to 2019. Medicare net patient service revenue increased slightly, by \$700 million, or 2%. Medi-Cal net patient service revenue showed the greatest change during the COVID-19 pandemic year, increasing by over \$2.8 billion in 2020, or more than 10% above 2019 levels.

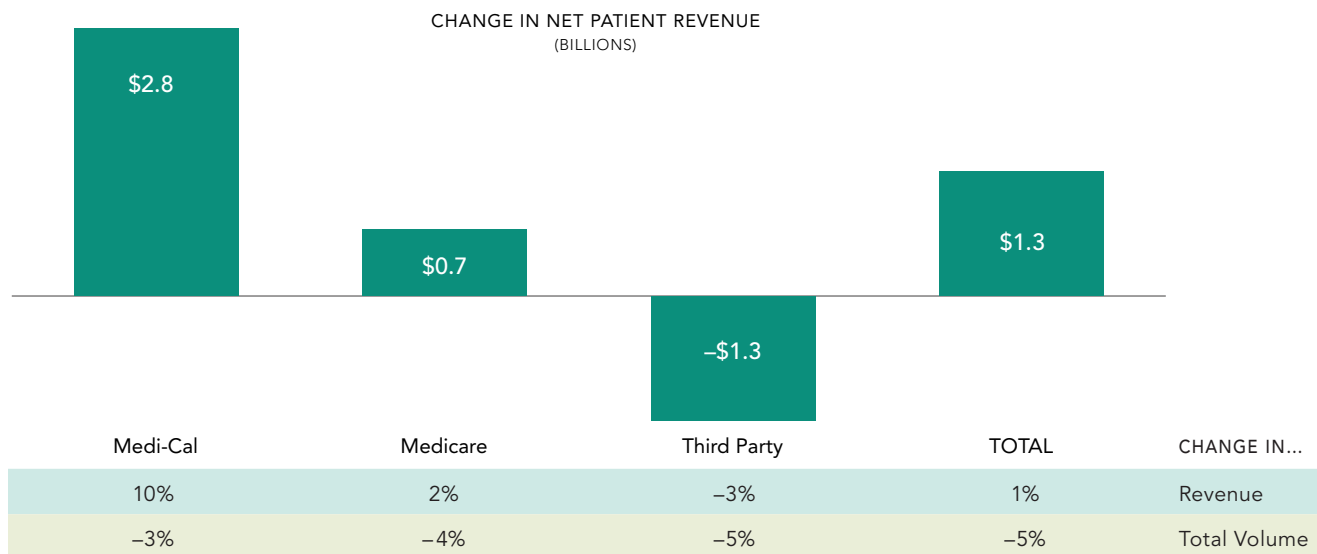
Increases in Medi-Cal revenue was driven in part by various supplemental hospital payments for prior year services unrelated to COVID-19 for Medi-Cal fee-for-service and managed care members.¹² For example, supplemental payments made to private hospitals in 2020 were for dates of service back to state fiscal years (SFY) 2017 to 2019 (through December 31, 2018).¹³ Currently, California has received waiver approval for the private hospitals' Quality Assurance Fee program for Medi-Cal for dates of service for SFY 2019 to 2022.¹⁴ Public hospitals in California operate under a different Medi-Cal supplemental payment structure. Major supplemental funding comes through the Public Hospital Redesign and Incentives in Medi-Cal

Exhibit 7. Net Patient Revenue (billions), by Major Payer, 2019 and 2020



Medi-Cal net patient service revenue showed the greatest change during the COVID-19 pandemic year, increasing by over \$2.8 billion in 2020, or more than 10% above 2019 levels.

Exhibit 8. Change in Net Patient Revenue and Total Volume (Adjusted Days), by Major Payer, 2019–20



FIGURES 7 AND 8:

Notes: Data include California comparable hospitals (N = 355) and excludes Kaiser. *Adjusted days* is a measure to convert and add the value of outpatient services as an inpatient day equivalent (inpatient days × [gross patient revenue ÷ gross inpatient acute care revenue]). *Third party* refers to commercial, primarily employer sponsored health care coverage. All payer types include both fee-for-service and managed care plans.

Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

(PRIME) quality improvement program under the current federal Medi-Cal 2020 Section 1115 waiver,¹⁵ and changes to the Medicaid managed care rule that established the Quality Improvement Program and the Enhanced Payment Program.¹⁶

Many of these supplemental payments are financed by assessing private hospital fees and public hospital intergovernmental transfers (IGTs) that are used as the state government dollars to draw down additional federal Medicaid funds. Both private and public hospitals also benefited from the 6.2% increase in federal match for Medicaid programs authorized by the Coronavirus Aid, Relief, and Economic Security (CARES) Act because it reduced the fees and IGT amounts paid by the facilities in 2020.

Increased Medicare net revenue was likely driven in part by the 20% increase in reimbursement (above 2019 levels) for diagnoses related to COVID-19 patients and a temporary halt to the 2% Medicare payment reduction required by sequestration under the Budget Control Act of 2011.¹⁷ In addition, both Medi-Cal and Medicare modified their reimbursement policies to pay providers for telehealth visits at the same rate as in-person rates.

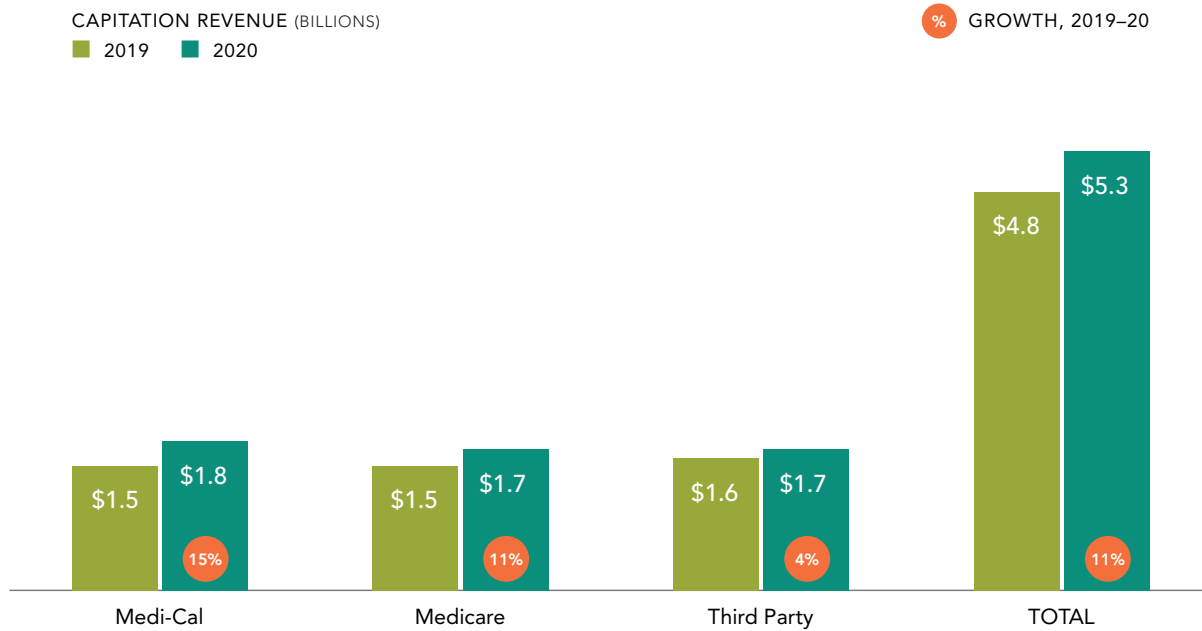
Another program that likely affected hospital reporting of Medicare revenue is the Medicare Advanced Accelerated Payments (MAAP) program. This program allowed hospitals to receive accelerated payments from Medicare to be netted against future Medicare volume and billings. In essence, these payments are loans against future volume that will have to be paid back.¹⁸ Initially, there was differing guidance on how these funds should be reported.¹⁹ Based on interviews for this report, some hospitals accounted for these payments as loans and, as such, did not report these funds as patient service revenue in 2020, while other hospitals may have. Final guidance required MAAP

be reported as loans. This is expected to be properly reported in the OSHPD annual financial reports, but the quarterly data are not expected to reflect any corrections. Therefore, there is probably some overstatement of the Medicare patient revenue in the OSHPD quarterly reports. To the extent this occurred, future Medicare payments and future Medicare patient revenue will be lower, as reporting corrections are made and the advanced payment funds are repaid.

Capitation Revenue Increased from Pre-COVID-19 Levels, Stabilized Some Hospitals

Capitation revenue is paid per capita for an enrolled population. As such, capitation revenue received by hospitals is affected by enrollment levels and is less sensitive to the decline in volume due to the pandemic. In 2020, capitation revenue paid to California hospitals increased by more than \$500 million, or over 11% (Exhibit 9 on page 11). Medi-Cal capitation revenue was the largest component of this increase, both in dollars and as a percentage, likely due to increased enrollment in the Medi-Cal managed care program in 2020.

Exhibit 9. Capitation Revenue (Amount and Percentage Growth), by Major Payer, 2019–20



Notes: Data include California comparable hospitals (N = 355) and excludes Kaiser. *Third party* refers to commercial, primarily employer sponsored health care coverage. All payer types include both fee-for-service and managed care plans.

Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

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COVID-19 Raised Hospital Operating Expenses and Reduced Hospital Net Income

Operating Expenses Increased Substantially in 2020

Despite reductions in total volume, California hospitals experienced a substantial 8% increase in total operating expenses in 2020 compared to 2019 (Exhibit 10). Some of this cost increase is explained by higher case-mix severity and average length of stay, including longer-stay COVID-19 patients.

Exhibit 10. Change in Total Hospital Volume and Operating Expenses, 2019–20

	CHANGE FROM 2019			
	2019	2020	DAYS/\$	%
Total Volume (adjusted days, millions)	27.24	26.01	-1.23	-5%
Operating Expenses (billions)	\$111.48	\$120.75	\$9.27	8%

Note: Includes California comparable hospitals (N = 355), excludes Kaiser.
Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

Another major contributor to increased operating expenses in 2020 is the additional costs incurred in preparing for and implementing new COVID-19-related procedures to ensure patient and staff safety while continuing to serve all patients.

Surge preparation generated conversion and construction costs, as hospitals established new COVID-19 surge capacity on general medical/surgical floors and in cafeterias and parking lot tents. Isolation (negative pressure) rooms and expanded ICU capacity requires renovated HVAC (heating, ventilation, and air conditioning) systems to improve infectious disease control, and many hospitals reportedly developed “hazmat rooms” near ambulance bays and the emergency

department to permit safe transfer to pandemic-ready areas of the facility. Supply shortages, for ventilators and for PPE such as masks, face shields, gowns, and gloves, led to substantial increased costs for many items.²⁰ Increased COVID-19 testing likely led to increased costs for laboratory supplies, including reagents, swabs, and vials.

Anecdotal reports suggest that many hospitals faced significant shifts in staffing demands, such as increased need for respiratory therapists and ICU nurses, which required training and reassignment. Some hospitals systems moved clinical staff among facilities, incurring travel, hotel, and meal costs. Other hospitals, with state and local government assistance, provided local hotel accommodations for staff who were concerned about bringing the infection home to family members. Increased costs for traveling or per diem nurses and therapists were reported to be as high as 200% to 300% of 2019 levels.²¹ Administrative and ambulatory clinic staff were reassigned and new people were hired for various security and gatekeeping functions, such as patient check-in, temperature checks, and capacity control. In the outpatient ambulatory care setting, many hospitals expanded their telehealth capability and had to ramp up computer and technical support for administrative and clinical staff who began to work remotely.

Later in the year, and likely not fully reflected in the OSHPD data reported through the 4Q of 2020, is the expense associated with preparation and rollout of hospital COVID-19 vaccination sites. Initial setup includes expenses for appropriate refrigeration and storage to properly handle vaccine supply and distribution, staff training, vaccination of hospital staff and contract workers, and outreach to patients as the vaccines became available. The expenses associated with establishing and administering vaccine sites will likely be reported in the hospital financial submissions for the first two quarters of 2021.

Both Operating and Total Margins Declined in 2020 Compared to 2019

While net patient service revenue growth was slightly positive in 2020 compared to 2019, it was not enough to offset reduced volume and higher operating expenses tied to the COVID-19 pandemic. Total net patient service revenue grew by \$1.3 billion while total operating expenses grew much more substantially — by \$9.3 billion, or 8%, compared to 2019 (Exhibit 11). This increase in operating expenses was partially offset by grants from the federal government to aid hospitals in coping with the challenges of operating during COVID-19 in 2020. In addition, the state purchased and distributed PPE, ventilators, and other essential supplies to California’s hospitals and other health care providers.²²

These federal grants, primarily Provider Relief Funds through the CARES Act and to a lesser extent Payroll Protection Payments, funds for COVID-19 testing and diagnosis, and reimbursement for uninsured COVID-19 patients, likely explain the substantial increase in other operating revenue reported by California hospitals in 2020 — an increase of \$3.7 billion, or 76%,

compared to 2019. While there were multiple general and targeted hospital distributions through the Provider Relief Funds, the cumulative impact was to grant most health care providers at least 2% of their previous annual revenue.²³ As of July 2021, federal records indicate California hospitals had secured a bit less than \$6 billion of CARES funding,²⁴ and providers collectively had been awarded \$14.9 billion.²⁵ Over 50,000 California providers have attested to \$10.8 billion in Provider Relief Funds and/or \$1.5 billion in reimbursement from the Uninsured Relief Fund.²⁶

However, these additional other operating funds were not enough to offset the substantial increase in operating expenses, resulting in a total loss from operations of approximately \$206 million. Hospitals typically rely on other funds — nonoperating revenue, which is revenue from non-patient care activities, such as investment income, rentals, donations and grants, and miscellaneous income from parking fees and cafeteria and gift store sales — to supplement their budgets and operations in normal times. This stream of funds also suffered a decline in 2020, decreasing by \$367 million, or 6%, compared to 2019.

Exhibit 11. Change in Total Revenues and Expenses, 2019–20

	2019	2020	CHANGE FROM 2019	
	millions	millions	millions	%
Net Patient Revenue	\$110,666	\$112,001	\$1,335	1%
+ Other Operating Revenue	\$4,843	\$8,543	\$3,700	76%
Total Operating Revenue	\$115,509	\$120,544	\$5,035	4%
– Operating Expenses	\$111,477	\$120,750	\$9,274	8%
Net from Operations	\$4,032	–\$206	–\$4,238	–105%
+ Nonoperating Revenue	\$5,778	\$5,412	–\$367	–6%
– Nonoperating Expense (est. 32%)	\$1,849	\$1,732	–\$117	–6%
Net Contribution Nonoperating Revenue (est.)	\$3,929	\$3,680	–\$249	–6%
Total Net Income	\$7,961	\$3,474	–\$4,488	–56%

Source: OSHPD Quarterly Data, 2019 and 2020.

When all revenues are aggregated and expenses are deducted, California hospitals reported a greater than 56% decrease in total hospital net income in 2020 compared to 2019 — falling from \$7.96 billion in 2019 to \$3.47 billion in 2020, a decline of \$4.49 billion.

The average total net income margin for the 355 California hospitals included in this study was a positive 6.56% in 2019 and a positive 2.76% in 2020.

Exhibit 12 compares the distribution of total net income margins at the hospital level in 2019 and 2020 based on reported total net income margins (measured as total net income from all sources divided by net patient service revenue + nonoperating net revenue) reported by hospitals to OSHPD in their calendar year quarterly reports.

Not surprisingly, the distribution shifted between 2019 and 2020, with a greater number of hospitals reporting negative total net income margins in 2020 and many hospitals reporting lower total net income margins in 2020 compared to 2019. In 2019, 2.5% of hospitals reported negative total margins of 30% or greater. This percentage increased to 3.4% in 2020. On a cumulative basis, 20% of hospitals reported 5% or greater negative total margin in 2020, up from 18.9% in 2019.

Exhibit 12. Change in Distribution of Hospitals, by Total Income Margin, 2019 and 2020

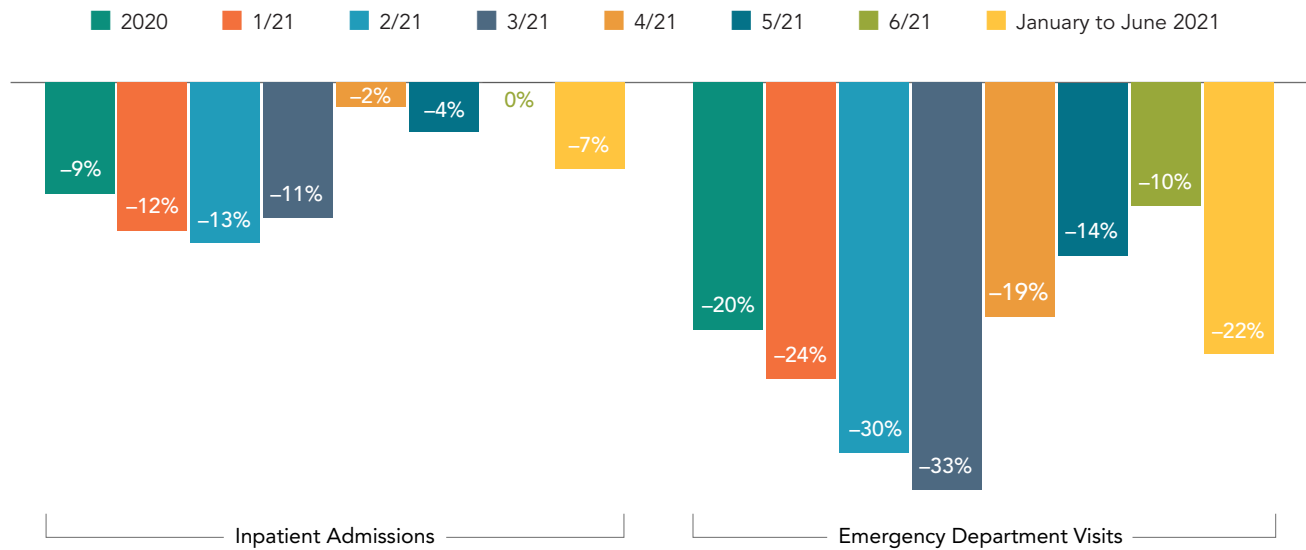
	TOTAL INCOME MARGIN (% OF HOSPITALS)			
			CUMULATIVE	
	2019	2020	2019	2020
Negative and Breakeven Margins				
-30%	2.5%	3.4%	2.5%	3.4%
-20%	2.8%	3.6%	5.4%	7.0%
-10%	6.5%	5.7%	11.8%	12.7%
-5%	7.0%	7.3%	18.9%	20.0%
0%	12.1%	15.0%	31.0%	35.0%
Positive Margins				
5%	18.0%	17.4%	18.0%	17.4%
10%	17.7%	17.6%	35.8%	35.0%
20%	18.6%	17.0%	54.4%	52.0%
30%	8.7%	10.0%	63.1%	62.0%
> 30%	6.0%	3.0%	69.1%	65.0%
Total	100%	100%		

Note: Includes California comparable hospitals (N = 355), excludes Kaiser.
Sources: 2019 Quarter 4 - Sum of Four Quarters, CHHS, April 10, 2020; and 2020 Quarter 4 - Sum of Four Quarters, CHHS, and April 15, 2021.

To provide insight into 2021, Exhibit 13 summarizes data covering 2020 and the first half of 2021 from a large sample of California hospitals based on patients that registered at a hospital for an inpatient admission or emergency department visit. These data show that hospital inpatient and ED use were well below pre-COVID-19 (2019) levels for 2020 and continue to

lag pre-COVID-19 levels from January through June 2021. Cumulatively, inpatient admissions are down by 7% and ED visits are down 22% for the January through June 2021 period compared to 2019. The early months of 2021 saw the steepest declines of volumes and, while now trending up, have still not returned to pre-COVID-19 levels.

Exhibit 13. Inpatient Admissions and Emergency Department Visits, 2020 and January to June 2021, Compared to Same Period in 2019



Source: CMT hospital registration data.

Conclusions

Overall, the data paint a mixed, and in some cases, surprising picture. Early studies of the effects of COVID-19 on hospitals generally predicted deep and sustained volume, revenue, and net income reductions. While hospitals did experience negative effects, the quantitative impact was not nearly as great as some analysts predicted.

Hospital volume did decline across all services — inpatient admissions, outpatient visits, and emergency visits — but overall total volume (inpatient + outpatient) was down only 5% for 2020. Increases in gross charges per unit and net revenue per unit of output helped to offset the projected revenue impact of volume declines. As a result, total net patient service revenue from all payers grew by \$1.3 billion, or 1%, compared to 2019.

Despite similar reductions in overall volume, a range of 3% to 5%, there is substantial variation in the change in net patient service revenue across the major payers. Net revenue from third-party payers — the largest payer — declined by 3% in 2020, while Medicare net patient service revenue increased slightly, by \$700 million, or 2%.

Medi-Cal was the most important payer in stabilizing the financial status of many California hospitals during the COVID-19 pandemic in 2020, providing an increase in patient service revenue of more than \$2.8 billion, or 10% greater than 2019 levels.

The Medi-Cal program, which has grown substantially over the last 10 years, primarily due to California's implementation of the Medicaid expansion provisions of the Affordable Care Act, provided a significant contribution to stabilizing the economic status of

California's hospitals during 2020. Medi-Cal was the most important payer in stabilizing the financial status of many California hospitals during the COVID-19 pandemic in 2020, providing an increase in patient service revenue of more than \$2.8 billion, or 10% greater than 2019 levels.

The biggest negative effects of COVID-19 on hospital net incomes came not from volume declines but from rising operational costs. Typically, with a mix of fixed and variable costs, one expects that reduced output results in lower total costs. Given the 4% decline in overall hospital volume, and assuming 50% fixed and 50% variable costs, total expenses should have declined by 2%. However, total operating expenses grew by 8% in 2020 over 2019. Most of these increased expenses are likely tied directly to the added costs of providing the necessary resources and capacity to safely operate during the infectious COVID-19 pandemic. There were reported shortages of almost all needed inputs — labor, equipment, and COVID-19-related PPE. These dynamics led to much higher input costs than in normal times, contributing to the spike in hospital costs during COVID-19. Underlying patient case-mix severity also increased during 2020, which added to the rise in average costs per unit.

An important part of the story of hospital finances in 2020 was the role of the federal government in providing subsidies to hospitals in anticipation of increased COVID-19-related costs and reduced volume due to shutdowns. The data gathered for this report suggest that these subsidies were critical in stabilizing the financial status of many California hospitals. Given that increased costs substantially exceeded growth in net patient service revenue, hospital total net incomes would have been substantially more negative in 2020 without government assistance. Based on the broadest measure of hospital financial performance — total hospital net income margins — California hospitals reported lower margins in CY2020 compared to CY2019. While 20% of hospitals reported 5% or greater negative total margin in 2020, up from 18.9% in 2019, this erosion in margin was not nearly to the degree expected in the early days of the pandemic.

The hospital inpatient admission and emergency department utilization data for the first six months of 2021 indicate that many of California's hospitals are likely to be significantly affected by COVID-19 well into 2021. Data for January through June 2021 report total inpatient admissions are still down 7% from pre-COVID-19 levels and ED visits are down 22%. While utilization was trending up toward pre-COVID-19 levels by June 2021, hospital utilization, as evidenced before, is subject to rapid and significant downward spikes if there are new COVID-19 outbreaks and consumers feel unsafe going to hospitals. Based on the data available to date, it is likely that California hospitals will end 2021 at inpatient and utilization levels that are still below pre-COVID-19 levels.

It is important to recognize that these analyses present an initial picture of the evolving impacts of COVID-19 on the performance of California hospitals. The analyses are based on the most recent available data from the OSHPD quarterly financial reports which are filed very soon after the end of each quarter and are subject to revision and updates. As a check for this paper, quarterly data for 2019 were compared with the OSHPD 2019 annual data filed after the close of the year by each hospital. Only small differences were found (less than 1%) for statewide totals across all hospitals.²⁷ As such, our findings reporting aggregate performance of 355 California hospitals are likely to hold up over time for many hospitals.

However, actual final hospital profitability status for 2020 may change for some hospitals as they update their reporting to OSHPD. 2020 revisions may be more frequent and substantial compared to previous years as hospitals restate how they account for the various COVID-19-related payments from governmental programs. And finally, it is important to note that there are substantial differences in financial performance at the hospital level and across hospitals that vary by location, patient population demographics, payer mix, and ownership that may differ from aggregate analyses. These represent important areas for future research.

Endnotes

1. "Current Safety Measures," State of California, last updated August 11, 2021.
2. Ryan Witz of the California Hospital Assn. (CHA), personal communication. At least 60% of those additional beds, or 30,000, were expected to come within existing hospitals, and the state made plans to secure the remaining beds, up to 20,000. For example, the state arranged a three-month lease of Seton Hospital (Daly City / San Mateo County) that was slated to close, Long Beach Community Hospital (Los Angeles County), and St. Vincent (Los Angeles) for \$30–\$36 million. The US Navy ship Mercy was moved to the Port of Los Angeles. Los Angeles County rented a convention center for medical use. Kaiser and Dignity Health cooperated in Sacramento County to rent the ARCO Arena (now Natomas).
3. Glenn Melnick and Susan Maerki, *The Financial Impact of COVID-19 on California Hospitals*, California Health Care Foundation (CHCF), June 2020. Measured as seven-day rolling average as reported by CMT.
4. Melnick and Maerki, *Financial Impact*.
5. Soumya Karlamangla, "California Flu Season Could Be One of the Worst in a Decade, State Officials Say," *Los Angeles Times*, January 9, 2018.
6. Soumya Karlamangla, "California Hospitals Face a 'War Zone' of Flu Patients — and Are Setting Up Tents to Treat Them," *Los Angeles Times*, January 16, 2018; and Karlamangla, "California Flu Season."
7. *2019 Calendar Year Hospital Utilization Pivot Table*, California Health and Human Services Agency, last updated December 15, 2020. Sample includes all licensed California hospitals (N = 478).
8. "Tracking COVID-19 in California," State of California, last updated August 14, 2021.
9. The ICU bed capacity total used here does not include pediatric intensive care beds — approximately 1,500 beds across California.
10. "COVID-19 Resources and Updates," Los Angeles County.
11. "Table 1," in "Impact of the COVID-19 Pandemic on Emergency Department Visits — United States, January 1, 2019–May 30, 2020," *MMWR* 69, no. 23 (June 12, 2020): 699–704; and Brad Boserup, Mark McKenney, and Adel Elkbulli, "The Impact of the COVID-19 Pandemic on Emergency Department Visits and Patient Safety in the United States," *Amer. Journal of Emergency Medicine* 38, no. 9 (Sept. 2020): 1732–36.
12. "Hospital Quality Assurance Fee Program," California Dept. of Health Care Services (DHCS), last modified December 23, 2019; *Fact Sheet: Medicaid Managed Care Rule — Changes to Supplemental Payments for California's Public Health Care Systems* (PDF), California Assn. of Public Hospitals and Health Systems (CAPH), April 2018; "Hospital Quality Assurance Fee Program," DHCS, last updated December 23, 2019; and Ryan Witz, personal communication. A substantial component of the supplemental payments comes from federally required redesign of the mechanisms to provide Medicaid supplemental payments to California hospitals. The Hospital Quality Assurance Fee program for private hospitals was established by Prop 52 in November 2016. Changes to the Medicaid Managed Care Rule, effective July 1, 2017, established the Quality Incentive Program and the Enhanced Payment Program for public hospitals. There are numerous ongoing streams of supplemental Medi-Cal payments not directly tied to current Medi-Cal member utilization and revenue, such as the disproportionate share hospital payments to facilities that serve higher levels of Medi-Cal, low-income, and uninsured populations. A substantial component of the supplemental payments comes from federally required redesign of the mechanisms to provide Medicaid supplemental payments to California hospitals. The Hospital Quality Assurance Fee program for private hospitals was established by Prop. 52 in November 2016. For example, two cycles of managed care supplemental payments were processed in 2019, but 2020 included an expedited third cycle at the end of the year.
13. Ryan Witz, "Hospital Fee Program Invoices Due Aug. 20: For CFOs," CHA, August 3, 2020.
14. "Hospital Fee Program Status: How You Keep Track of Federal Approvals," CHA. Based on the QAF Model, private hospitals are projected to receive a net benefit (hospital paid fees – adjustments) of \$4.0 billion for SFY 2019–20, \$4.6 billion for SFY 2020–21 and \$2.1 billion for SFY 2021–22. See "Hospital Quality Assurance Fee Program: Hospital Quality Assurance Fee Program Models," DHCS, last modified March 23, 2021.
15. "Public Hospital Redesign and Incentives in Medi-Cal (PRIME)," CAPH. In the most recently reported Demonstration Year 4 (2018–19), designated public hospitals received \$1.4 billion in total funds, a net benefit over the hospital Federal Financial Participation funds of approximately \$700 million.
16. *Fact Sheet*, CAPH. Changes to the Medicaid managed care rule, effective July 1, 2017, established the Quality Incentive Program and the Enhanced Payment Program for public hospitals.
17. "Biden Administration Extends Suspension of Mandatory 2% Medicare FFS Payment Sequestration," *Health Law Attorney Blog*, April 22, 2021.

18. [Fact Sheet: Repayment Terms for Accelerated and Advance Payments Issued to Providers and Suppliers During COVID-19 Emergency](#) (PDF), Centers for Medicare & Medicaid Services (CMS), October 8, 2020. Medicare Accelerated Advance Payments were issued to hospitals beginning March 28 and suspended on April 26, 2020, although applications were accepted through early October 2020. Federal law delayed the beginning of the recoupment process for one year. All California hospitals should have started the recoupment process by the end of April 2021. This will reduce Medicare claims payments by 25% for a period of 11 months, and if necessary, by 50% for the next six months. After that, CMS will issue a demand letter for full repayment of the remaining funds, with a 4% interest rate applied to all funds 30 days after the letter is issued.
19. [Q&A Section 6400: Health Care Entities](#) (PDF), Amer. Institute of Certified Public Accountants (AICPA), September 2020; and [Hospital Technical Letter 33](#) (PDF), California Office of Statewide Health Planning and Development (OSHPD), October 2020. AICPA issued guidance in September 2020, and OSHPD issued initial guidance in October 2020 that was revised in April 2021.
20. William Dow, Kevin Lee, and Laurel Lucia, [“Economic and Health Benefits of a PPE Stockpile,”](#) UC Berkeley Labor Center, August 12, 2020. See also James M. Berklan, [“Analysis: PPE Costs Increase Over 1,000% During COVID-19 Crisis,”](#) *McKnight’s Long-Term Care News*, April 9, 2020; and Jacqueline LaPointe, [“Healthcare Supply Chain Still Fragile a Year After COVID-19,”](#) *Practice Management News*, April 5, 2021.
21. Deena Beasley, [“Coronavirus Drives Up Demand — and Pay — for Temporary US Nurses,”](#) Reuters, March 21, 2020; and Markian Hawryluk and Rae Ellen Bichell, [“Need a Nurse? That Will Be \\$8,000 a Week,”](#) Kaiser Health News, November 24, 2020.
22. David A. Lieb and Camille Fassett, [“How Much Did Massachusetts Spend This Spring on PPE? Here Is What the Numbers Show,”](#) *MetroWest Daily News*, December 21, 2020.
23. Karyn Schwartz and Tricia Neuman, [“Funding for Health Care Providers During the Pandemic: An Update,”](#) KFF, April 20, 2021.
24. [COVID-19 in 2020: Financial Pressure Continues for California Hospitals](#), Kaufman Hall, April 2021.
25. [“HHS COVID-19 Funding Overview”](#) (July 23, 2021), US Dept. of Health and Human Services (HHS). The website provides data on HHS funding provided in the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020; the Families First Coronavirus Response Act; the Coronavirus Aid, Relief, and Economic Security (CARES) Act; the Paycheck Protection Program and Health Care Enhancement Act (PPPHEA); the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA - Division M, Title III), 2021; and the American Rescue Plan Act of 2021.
26. [“Funding Overview,”](#) HHS.
27. The percentage difference between OSHPD 2019 quarterly data and 2019 annual pivot data for the 355 study hospitals: net patient revenue: -0.64%, total operating revenue: +0.22%, total operating expense: +0.88%, total net revenue: +0.86%