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Report to Congressional Addressees

August 2024

HOSPITALS

Expanded Use of Supplemental Nurses during the COVID-19 Pandemic

GAO-24-106447

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GAO Highlights

Highlights of GAO-24-106447, a report to congressional addressees

Why GAO Did This Study

Hospitals are reliant on nurses, among other clinicians and staff, to meet the treatment and care needs of their patients. When they do not have enough employed staff to provide care for their patients, they may contract with external staffing agencies for supplemental nurses.

The CARES Act includes a provision for GAO to report on its ongoing COVID-19 monitoring and oversight efforts. GAO was also asked to review hospitals' use of supplemental nurses during the COVID-19 pandemic. This report describes (1) selected hospitals' use of supplemental nurses from 2019 through 2022 and (2) selected hospitals' other strategies for responding to staffing challenges during the pandemic.

GAO interviewed a nongeneralizable sample of 11 acute care hospitals that represent a variety of locations, health system affiliations, ownership types, and numbers of licensed beds. Six of these hospitals were able to provide GAO complete data for 2019 through 2022 on their use of, spending on, and average hourly cost of supplemental nursing staff. GAO also interviewed representatives from four health care staffing agencies selected based on market size and seven academic researchers with relevant expertise. GAO also analyzed 2019-2022 data from California hospitals on the use and cost of nursing staff. GAO selected California as it had publicly available data for directly employed and supplemental nursing staff. GAO also analyzed data from national sample surveys of RNs by the Health Resources and Services Administration in 2018 and 2022.

View GAO-24-106447. For more information, contact Leslie V. Gordon at (202) 512-7114 or GordonLV@gao.gov.

What GAO Found

Use of supplemental nurses—nurses temporarily contracted by hospitals through external staffing agencies—increased in the selected hospitals in GAO's review during the COVID-19 pandemic. Specifically, GAO requested data from 11 selected hospitals from 2019 to 2022. Of the six selected hospitals that were able to provide complete data for these 4 years, five of the hospitals reported that the proportion of registered nurse (RN) hours worked by supplemental RNs more than doubled. Overall use ranged from 2 to 28 percent in 2022 (see table).

Proportion of Supplemental Registered Nurse (RN) Use in Selected Hospitals, 2019 and 2022

	Hospital A	Hospital B	Hospital C	Hospital D	Hospital E	Hospital F
2019	3%	<1%	<1%	4%	13%	8%
2022	6%	7%	16%	12%	2%	28%

Source: GAO analysis of data on supplemental RN hours or full-time equivalent employees provided by selected hospitals. | GAO-24-106447

Data provided to GAO by the six selected hospitals also show the average hourly cost of RNs increased from 2019 to 2022, with a greater rate of increase for supplemental RNs than for directly employed nurses. Specifically, the percentage increases for these six hospitals ranged from 14 to 45 percent for directly employed RNs and from 53 to 266 percent for supplemental RNs. GAO found similar trends in use and average hourly cost in California hospital data.

Representatives GAO interviewed from 11 selected hospitals reported implementing a range of new and pre-existing strategies, to respond to staffing challenges in the COVID-19 pandemic (see figure). Nine of the 11 hospitals avoided reductions in operating capacity during the pandemic, representatives told GAO. However, representatives from two of the hospitals reported operational changes, such as closing a unit or reducing the number of beds available for patients. Representatives from seven of the nine hospitals credited their hospitals' ability to maintain capacity, as the pandemic continued, to the increased use of supplemental nurses.

Examples of Selected Hospitals' Strategies for Responding to Staffing Shortages

Source: GAO analysis of interviews with representatives of 11 selected hospitals; RaulAlmu/stock.adobe.com (illustrations). | GAO-24-106447

Contents

Tables

Figure

Abbreviation

RN	registered nurse

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August 1, 2024

Congressional Addressees

Hospitals are reliant on nursing staff, along with other clinicians and hospital staff, to meet the treatment and care needs of their patients. When hospitals do not have enough employed staff to provide care for their patients, they may contract with external staffing agencies for temporary staff. This practice has been an important part of nurse staffing for decades.

Surges in COVID-19 cases during periods of the pandemic, often associated with the emergence of new variants, stressed hospitals with high patient volumes.[1] It also depleted nursing staff and clinicians who faced exposure to the virus as part of their jobs. The extended length of the COVID-19 pandemic—over 3 years—placed further stress on hospitals and their staff, leading to increased staff burnout, exhaustion, and trauma.

Local and national news media reported that wages paid to contracted temporary nursing staff, which we refer to as supplemental nurses, jumped during the pandemic. Media reports indicated that wage differences between nurses directly employed by hospitals and supplemental nurses led to some nurses leaving direct hospital employment in favor of contracts with staffing agencies. These reports

[1]The Secretary of Health and Human Services first declared the COVID-19 pandemic a public health emergency under section 319 of the Public Health Service Act on January 30, 2020. In addition, on March 13, 2020, the President declared COVID-19 a national emergency under the National Emergencies Act and a nationwide emergency under section 501(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The national emergency declaration terminated on April 10, 2023, and the Stafford Act declarations terminated on May 11, 2023, though the nation is still recovering from the public health and economic effects of the pandemic.

also highlighted the potential financial implications to hospitals due to the increased need for, and cost of, supplemental nurses.[2]

The CARES Act includes a provision for us to report on our ongoing monitoring and oversight efforts related to the COVID-19 pandemic.[3] Further, you asked us to examine how hospitals' use of supplemental nurses changed during the pandemic.

This report describes (1) selected hospitals' use of supplemental nurses from 2019 through 2022, and (2) selected hospitals' other strategies for responding to staffing challenges during the COVID-19 pandemic.

To address both objectives, we interviewed representatives and requested data from a nongeneralizable selection of 11 acute care hospitals.[4] We selected the 11 hospitals to represent a variety of locations, health system affiliations, ownership types, and numbers of licensed beds. We cannot generalize our findings from the 11 hospitals to other hospitals. (See appendix I for more information on our 11 selected hospitals and how we selected them.)

[2]Nurses are a labor cost to hospitals. Unlike physicians and advanced practice registered nurses, the care that nurses provide is not directly billed to insurance.

For examples of media reports, see Lenny Bernstein, "As COVID Persists, Nurses Are Leaving Staff Jobs – and Tripling their Salaries as Travelers," *The Washington Post*, Dec. 6, 2021; Leticia Miranda, "Rural Hospitals Losing Hundreds of Staff to High-Paid Traveling Nurse Jobs," *NBC Business News*, Sept. 15, 2021; Abby Vesoulis and Abigail Abrams, "Contract Nurse Agencies Are Making Big Money in the Age of COVID-19. Are They 'Exploiting' the Pandemic?" *TIME*, Feb. 23, 2022; and Jessie Hellmann and Alex Kacik, "Beyond the Byline: Providers Accuse Staffing Agencies of Price Gouging," *Modern Healthcare*, Mar. 17, 2022.

[3]Pub. L. No. 116-136, § 19010(b), 134 Stat. 281, 579 (2020). The American Rescue Plan Act of 2021 also includes a provision for us to conduct oversight of the COVID-19 response. Pub. L. No. 117-2, § 4002, 135 Stat. 4, 78. All of GAO's reports related to the COVID-19 pandemic are available on GAO's website at https://www.gao.gov/coronavirus.

Since 2020, we have reported on challenges hospitals experienced during the COVID-19 pandemic, including federal efforts to respond to them. See the following reports related to hospital staffing challenges: (1) GAO, *Public Health Preparedness: COVID-19 Medical Surge Experiences and Related HHS Efforts*, GAO-22-105461 (Washington, D.C.: Aug. 17, 2022); (2) GAO, *Behavioral Health and COVID-19: Higher-Risk Populations and Related Federal Relief Funding*, GAO-22-104437 (Washington, D.C., Dec. 10, 2021); and (3) GAO, *COVID-19: Opportunities to improve Federal Response and Recovery Efforts*, GAO-20-625 (Washington, D.C.: Jun. 25, 2020).

[4]There are no comprehensive federal hospital nurse staffing data that distinguish between directly employed and supplemental nursing staff.

From the 11 selected hospitals, we requested data for 2019 through 2022 for both directly employed and supplemental nursing staff—including registered nurses (RN), licensed vocational nurses, and certified nurse assistants.[5] Six of the 11 hospitals were able to provide data for all 4 years requested. To address our first objective, we analyzed and reported the following data from these six selected hospitals:

- inpatient nurse use (reported in either inpatient nursing hours or inpatient nursing full-time equivalents),
- total hospital spending, and
- hourly cost paid by the hospital.

We limited our analysis to RNs because four of the six selected hospitals did not report use of other supplemental nursing staff, such as licensed vocational nurses and certified nursing assistants.

To provide additional context, we also identified and examined publicly available data from California hospitals for 2019 through 2022 on the annual use of and hourly cost for both directly employed and supplemental nursing staff.[6] We examined California hospital data because the data distinguished between directly employed and supplemental nursing staff, which may include RNs, licensed vocational nurses, and aides and orderlies. We limited our analysis of California hospitals to short-term general acute care hospitals that reported a full year of data, among other exclusions. (See appendix II for more information on our analysis of data on California hospitals.) Our analysis of California hospital data is not generalizable to other states.

We assessed the reliability of the data provided by our selected hospitals by interviewing hospital representatives and reviewing the data to identify any anomalies. We also assessed the reliability of the California data by reviewing relevant data documentation, interviewing knowledgeable officials, and performing tests of the data to identify any outliers or

[5]In this report, we use the term licensed vocational nurses, which includes both licensed vocational nurses and licensed practical nurses. According to the U.S. Bureau of Labor Statistics, these types of nurses have nearly identical responsibilities, but their titles vary across states.

[6]Certain hospitals licensed by the California Department of Public Health must submit annual financial disclosure reports. See Cal. Health and Safety Code § 128735 (2024). These reports are compiled based on the end date of the fiscal year reported.

anomalies. We determined that the data were sufficiently reliable for the purposes of our reporting objectives.

To inform both objectives, we also reviewed documents and interviewed three national stakeholder associations representing hospitals, staffing agencies, and nurses; four health care staffing agencies selected based on largest market size in 2021; and seven academic researchers with expertise on hospital nurse staffing and use of supplemental nurses. For example, in these interviews, we discussed the nurse staffing challenges during the pandemic and the pandemic's impact on hospital use of and spending on supplemental nurses. We also interviewed officials from relevant Department of Health and Human Services' agencies, including the Centers for Medicare & Medicaid Services, the Health Resources and Services Administration, and the Office of the Assistant Secretary for Planning and Evaluation.

We conducted this performance audit from December 2022 to August 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

More than 1.8 million nurses worked in hospitals at the end of 2021. Nurses are critical to hospitals and have a direct effect on patient care. They provide most patient assessments, evaluations, and physical care, often attend to patients' social and mental needs, and prepare patients and their families to leave the hospital. Further, as patient care has become more complex, nurses may need to make critical decisions associated with care for sicker, frailer patients and help patients manage chronic illnesses. When hospitals have temporary nurse vacancies, they may contract for supplemental nurses through external staffing agencies using a variety of different arrangements. Prior to the COVID-19 pandemic, use of supplemental nurses was a common hospital practice. Hospitals have varying options in how they structure contracts with external staffing agencies.

Supplemental Nurse Arrangements

Health care staffing agencies hire nurses to fill temporary assignments wherever nurses are needed. Supplemental nurses often work in hospitals, but may also work in other settings, such as nursing homes. The educational and licensing requirements and daily responsibilities of a supplemental nurse are typically the same as a directly employed nurse.

A nurse may hold jobs through a staffing agency as a primary job, secondary job, or both.

Staffing agencies offer a range of temporary assignment types for supplemental nurses. Common arrangements include:

- **per diem (payment per day) arrangements,** in which nurses work locally and typically operate on a shift-by-shift basis,
- **travel arrangements,** in which nurses fill temporary vacancies for a contracted period of time.[7] The contract length for travel arrangements is often 13 weeks, but it can vary depending on the hospital's needs.

Health care staffing agencies typically screen each nurse candidate for the necessary training, licensure, and clinical competencies needed for the client's facility. Once a nurse's contract begins, staffing agencies typically provide their nurses with complete compensation packages during their temporary assignments, which may include competitive wages, professional liability insurance, retirement savings plans, and, when travel is required, reimbursements for housing, meals, and travel expenses, among other things.

Staffing Agency Contracts with Hospitals

In their arrangements with staffing agencies, hospitals can (1) manage one or more staffing agency contracts directly or (2) contract with a single staffing agency to manage their supplemental nursing needs, known as a managed service provider agreement. In such an arrangement, the managed service provider typically uses a combination of nurses through its own staffing agency and from other staffing agencies to fulfill the hospital's needs and manages that process for the hospital.

For hospitals part of larger health systems, the staffing agency contract structure, and decisions about the need for supplemental nurses, can vary. Specifically, some staffing agency contracts may be between the agency and the health system, with decisions on the need for supplemental nurses occurring either at the hospital- or health system-level. Other contracts may be between the agency and the individual

[7]Health care staffing agencies may offer other types of contractual arrangements for supplemental nurses and hospitals, such as rapid response arrangements (quick responses to regional emergencies, such as natural disasters, in which a large number of nurses are needed for a shorter period of time).

hospital, with decisions on the need for supplemental nurses occurring at the hospital level.

A hospital's contract with a staffing agency may vary in the amount of support the agency provides the hospital with supplemental nurse recruitment and hiring. For example, staffing agencies may conduct interviews with nurse candidates and send the most qualified to the hospital for selection or staffing agencies may provide all potential nurse candidates to the hospital to interview and select.

Hospitals pay staffing agencies an hourly amount for each supplemental nurse placed in the facility. The hourly amount includes more than just the hourly pay rate to the supplemental nurse. The total hourly cost of the supplemental nurse to the hospital, is made up of both the (1) nurse costs (including, but not limited to, hourly pay rate, payroll taxes, and benefits) and (2) operating expenses (the staffing agency's overhead costs) and staffing agency earnings.[8] In comparison, the hourly cost to the hospital for a directly employed nurse includes the nurse's hourly wages, benefits (health insurance, retirement, paid time off), and payroll taxes.[9]

Hospitals generally decide what they are willing to pay staffing agencies for each supplemental nurse. Staffing agencies may provide hospitals with market rate information to help in that determination. Further, once placed in the hospital, day-to-day oversight of the supplemental nurse is generally provided by the hospital's on-site supervisor. Other responsibilities are managed by the staffing agency, including payroll, insurance and other benefits, and worker's compensation, among other things.

[8]A supplemental nurse's hourly pay rate was the largest component of the bill rate (about 52 percent) in 2022, followed by housing and meal reimbursement (about 21 percent), according to an industry report based on a survey of staffing agencies. See Staffing Industry Analysts and National Association of Travel Healthcare Organizations' Travel Nurse Benchmarking Survey, *Historical Trends Report: Survey Years 2018 through 2023* (Mountain View, CA: Staffing Industry Analysts, 2023).

[9]Hourly cost to the hospital for directly employed nurses does not include indirect costs, such as recruiting costs and sign-on bonuses, among other costs.

Use and Hourly Cost of Supplemental Nurses in Selected Hospitals Increased during the COVID-19 Pandemic

The use and cost of supplemental nurses increased in selected hospitals, as well as in California hospitals, from 2019 to 2022. Supplemental RN staffing as a percentage of total RN staffing in 2022 varied across the six selected hospitals that provided data for all 4 years. The peak in use of, and average hourly cost for, supplemental nurses across the four years of data we analyzed occurred in the latter years of the pandemic (2021 or 2022) in both our selected hospitals and California hospitals. The average hourly cost for nurses increased for all nursing types in our selected hospitals and for California hospitals, and the increase in average hourly costs for supplemental nurses exceeded the increase in average hourly costs for directly employed nurses.

Selected Hospitals' Use of Supplemental Nurses Increased during the Pandemic, with the Percentage of Supplemental Nurses to Total Nurses Ranging from 2 to 28 in 2022

The use of and spending on supplemental nurses—specifically RNs—in the inpatient setting in most of our six selected hospitals increased during the COVID-19 pandemic, especially in the pandemic's later stages (2021 and 2022). We saw similar trends in California hospitals. National RN and employer survey data also show increases in RNs employed by staffing agencies during the pandemic.

Selected hospitals increased supplemental nurse use. Specifically, five out of six selected hospitals that reported all 4 years of data (2019 to 2022), reported increases in the use of supplemental RNs from 2019 to 2022. Data from the sixth hospital showed variation across the 4 years, with an overall decrease in its use of supplemental nurses.

For example, one hospital reported 304 total hours for supplemental RNs in 2019, which increased to 16,270 total hours in 2022. For directly employed RNs, this hospital reported 230,935 total hours in 2019, which decreased to 220,096 total hours in 2022. (See app. I.)

Supplemental RN staffing as a percentage of total RN staffing ranged from less than 1 to 13 percent in 2019 and ranged from about 2 to 28 percent of total RN staffing in 2022, in our six hospitals.[10] (See table 1.)

[10]The proportion of supplemental RN staffing for one of these hospitals was about 28 percent in 2022, following no use of supplemental RN staff in 2020. Representatives noted that the hospital relied more on supplemental staffing in 2021 and 2022 as it converted into a regional medical center and recruited directly hired staff.

Table 1: Supplemental Registered Nurse (RN) Use as a Percentage of Total RN Use in Selected Hospitals, 2019 to 2022

Selected hospital	Hospitals' supplemental RN staffing (reported as either hours worked by or full-time equivalent employees) as a percentage of total RN staffing				Change 2019 to 2022
	2019	2020	2021	2022	
Hospital A	3	4	5	6	▲
Hospital B	<1[a]	5	10	7	▲
Hospital C	<1[b]	0[c]	3	16	▲
Hospital D	4	7	12	12	▲
Hospital E[d]	13	3	20	2	▼
Hospital F[e]	8	0	20	28	▲

▲ indicates an increase.
▼ indicates a decrease.

Source: GAO analysis of data provided by six of GAO's selected hospitals. | GAO-24-106447

Note: Of the six hospitals that provided data for all 4 years, two hospitals reported data by hospital fiscal year (defined as July 1 through June 30) and four hospitals reported by calendar year.

[a]This value was 0.1.

[b]This value was 0.5.

[c]This hospital used no supplemental RN staffing in 2020.

[d]Representatives told us they needed supplemental nurses due to major changes to their patient census in 2021 during the pandemic. The hospital reduced use of supplemental nursing staff in 2022 because they were able to hire directly employed nurses.

[e]This hospital used no supplemental RN staffing in 2020, when the hospital had significantly reduced hiring of directly employed staff in anticipation of a change in ownership. Representatives noted that the hospital relied more on supplemental staffing in 2021 and 2022 as it converted into a regional medical center and recruited directly hired staff.

In the five hospitals that reported increases in their use of supplemental RNs, reported hospital spending on supplemental RNs increased from 2019 to 2022, and these increases in spending on supplemental RNs outpaced the increases in their use. For example, one hospital's spending on supplemental RNs approximately quadrupled, increasing from $2,310,411 in 2019 to $9,262,158 in 2022, while its use of supplemental RNs doubled during the same period. For directly employed RNs, this hospital reported spending $73,434,510 in 2019 and $85,136,777 in 2022 (an increase of nearly $12 million), while its use of directly employed RNs stayed nearly the same. (See app. I.)

Five of the six hospitals that reported an increased use of supplemental nurses also reported increased spending on supplemental RNs as a proportion of their total spending. Hospital spending on supplemental RNs as a percentage of total hospital spending on RNs grew to 50 percent or more for two of the hospitals by 2022, with spending on supplemental

nurses remaining under 20 percent of total spending on RNs for the other four hospitals. (See table 2.)

Table 2: Spending on Supplemental Registered Nurses (RN) as a Percentage of Total Hospital Spending on RNs in Selected Hospitals, 2019 to 2022

Selected hospital	Hospitals' reported spending on supplemental RNs (as a percentage of total RN spending)				Change 2019 to 2022
	2019	2020	2021	2022	
Hospital A	3	4	5	10	▲
Hospital B	<1[a]	8	20	12	▲
Hospital C	2	0[b]	16	67	▲
Hospital D	5	11	22	18	▲
Hospital E	20	5	32	4	▼
Hospital F	12	0[b]	44	50	▲

▲ indicates an increase.
▼ indicates a decrease.

Source: GAO analysis of data provided by six of GAO's selected hospitals. | GAO-24-106447

Note: Two of the six hospitals reported data by hospital fiscal year (defined as July 1 through June 30) and four of the hospitals reported by calendar year.

[a]This value was 0.2.

[b]Hospitals C and F used no supplemental RN staffing in 2020.

All six selected hospitals reported that their use of and spending on supplemental RNs peaked during later stages of the COVID-19 pandemic—2021 or 2022—rather than in the first year. The use of supplemental RNs as a percentage of total RN use and spending on supplemental RNs as a percentage of total hospital spending also increased. For example, data reported by two hospitals showed the highest proportion of use and spending in 2021, and the other three hospitals showed the highest proportion of use and spending in 2022. The remaining hospital showed its highest proportion of use in 2021, which remained the same in 2022. Representatives from one of the hospitals attributed this to staff beginning to fall ill in 2021 and pandemic-related turnover in nurses increasing in 2022. The hospital's issues with turnover did not begin until the end of 2021, leading into 2022, and coincided with a 15 percent increase in patient volume. (See app. I for additional information on RN use and spending over time in selected hospitals.)

California hospitals also show increase in use of supplemental nurse staffing. Similar to our selected hospitals, we found California hospitals also reported increases in their use of supplemental nursing

staff during the COVID-19 pandemic. (For the California hospitals, these increases in supplemental nursing staff use may have included increased use of RNs, licensed vocational nurses, and aides and orderlies, unlike for our selected hospitals where we report on supplemental RN use specifically.) Most California hospitals (about 92 percent each year) reported using supplemental nursing staff; the average total hours worked by supplemental nursing staff in these hospitals increased from about 29,000 hours in fiscal year 2019 to about 42,000 hours in fiscal year 2022 (a 45 percent increase). See appendix II for more information.

Overall use of supplemental nursing staff in California hospitals as a percentage of total nurse staff remained under 10 percent in 2022. Specifically, for California hospitals reporting the use of supplemental nurses, the average proportion of annual hours worked by supplemental nursing staff increased from fiscal year 2019 to fiscal year 2022. The average proportion of annual hours worked by directly employed RNs increased, while the proportion of annual hours worked by other directly employed nursing staff decreased. (See table 3.)

Table 3: Hours Worked by Type of Nursing Staff in California Hospitals That Reported Supplemental Nursing Staff Use, Fiscal Years 2019 to 2022

		Average Percentage of Annual Hours Worked by Each Type of Nursing Staff of Total Nurse Staffing Hours in California Hospitals				
Type of nursing staff		Fiscal year 2019 (n=243)	Fiscal year 2020 (n=238)	Fiscal year 2021 (n=238)	Fiscal year 2022 (n=236)	Change 2019 to 2022
Directly employed nursing staff	Registered nurses	71	72	72	72	▲
	Licensed vocational nurses	6	5	5	4	▼
	Aides and orderlies	20	20	20	19	▼
Supplemental nursing staff[a]		5	5	5	7	▲

▲ indicates an increase.

▼ indicates a decrease.

Source: GAO analysis of California Department of Health Care Access and Information, Hospital Annual Financial and Utilization data. | GAO-24-106447

Notes: We limited our analysis to short-term general and short-term children's acute care hospitals that reported a full year of data. Totals are from all hospital inpatient units in these hospitals, which may include non-acute care units.

We excluded 31 Kaiser hospitals from our analysis that did not report average hourly cost for all 4 years in our review.

Totals in columns do not add to 100 percent due to rounding.

[a]In this report, we refer to the state's category of registry nursing personnel (which may include registered nurses, licensed vocational nurses, and aides and orderlies) as supplemental nursing staff.

National survey data also showed increases in RNs employed by staffing agencies. National survey data estimates indicated similar

trends. Specifically, data from a sample survey of RNs conducted by the Health Resources and Services Administration within the Department of Health and Human Services showed that the number of hospital RNs employed by staffing agencies increased during the pandemic. Approximately 2 percent of the estimated 1.17 million RNs whose primary job was in an inpatient hospital setting were employed by a staffing agency in 2017, compared with approximately 10 percent of the estimated 1.27 million RNs working in an inpatient hospital setting in 2021. (See app. III for more information.) Additionally, data from a sample survey of employers conducted by the U.S. Bureau of Labor Statistics showed that the estimated percentage of employees working as RNs for external staffing agencies in any sector of the economy (including, but not limited to, the health care sector) increased during the pandemic, with about 2 percent of RNs working for external staffing agencies in 2019 and about 3 percent in 2022.[11]

Nurse Hourly Costs Increased for Selected Hospitals during the Pandemic, with Greater Rates of Increase for Supplemental Nurses

Data we collected from six selected hospitals show average hourly cost for both directly employed RNs and supplemental RNs increased from 2019 to 2022, with a greater rate of increase for supplemental RNs.[12] Specifically, of the six selected hospitals that reported all 4 years of data, all hospitals reported increases in average hourly cost for RNs from 2019 to 2022. The percentage increase ranged from about 14 to 45 percent for directly employed RNs and from about 53 to 266 percent for supplemental RNs. (See table 4.)

[11]The U.S. Bureau of Labor Statistics' Occupational Employment and Wage Statistics program produces employment and wage estimates for approximately 830 occupations based on a survey of business establishments (employers). Data are published annually with a May reference date and each year's estimates were produced by a model-based estimation method using three years of data. See U.S. Bureau of Labor Statistics' "All May 2022 Data," *Occupation Employment and Wage Statistics Tables*, accessed June 7, 2024, and "All May 2019 Data," *Occupation Employment and Wage Statistics Tables*, accessed Jan. 9, 2024, https://www.bls.gov/oes/tables.htm.

[12]The hourly cost to the hospital for a directly employed nurse includes the nurse's hourly wages, benefits, and payroll taxes. The hourly cost to the hospital for a supplemental nurse is the rate paid to the staffing agency. This rate includes both the nurse costs (including hourly pay rate, payroll taxes, and benefits) and operating expenses (the staffing agency's overhead costs) and earnings.

Table 4: Percentage Change in Average Hourly Cost for Registered Nurses (RN) in Selected Hospitals, from 2019 to 2022

	Directly employed RNs average hourly cost (in dollars)			Supplemental RNs average hourly cost (in dollars)		
Hospital	**2019**	**2022**	**Change (percent)**	**2019**	**2022**	**Change (percent)**
Hospital A	$76.49	$94.94	24%	$76.61	$143.82	88%
Hospital B	$46.24	$62.12	34%	$76.02	$116.31	53%
Hospital C	$30.00	$40.25	34%	$41.00	$150.00	266%
Hospital D	$35.59	$40.55	14%	$57.35	$93.14	62%
Hospital E	$43.18	$50.17	16%	$71.80	$123.18	72%
Hospital F	$36.26	$52.58	45%	$58.28	$131.76	126%

Source: GAO analysis of data provided by six of GAO's selected hospitals. | GAO-24-106447

Notes: Two of the six hospitals reported data by hospital fiscal year (defined as July 1 through June 30) and four of the hospitals reported by calendar year.

The hourly cost to the hospital for a directly employed nurse includes the nurse's hourly wages, benefits, and payroll taxes. The hourly cost to the hospital for a supplemental nurse is the rate paid to the staffing agency. This rate includes both the nurse costs (including hourly pay rate, payroll taxes, and benefits) and operating expenses (the staffing agency's overhead costs) and earnings.

According to representatives from three of the six hospitals, hourly costs for supplemental RNs were trending down and stabilizing as of the time we conducted the interviews, which was after the federal government ended the COVID-19 public health emergency declaration in May 2023.[13] For example, representatives at one of the hospitals noted declining costs for supplemental nurses as of September 2023, but stated that they did not anticipate that supplemental nurse payment rates would ever return to pre-pandemic levels. Representatives at another one of the hospitals echoed this, describing higher payment rates for supplemental nurses as the "new normal."

According to representatives from most of the selected hospitals and staffing agencies we interviewed, hospitals or their health systems decide what total hourly amount they are able or willing to pay staffing agencies for each supplemental nurse. The supplemental nurse's hourly payment rate and benefits make up a large portion of the total cost, but other components, such as staffing agency overhead and earnings, also contribute. For example, representatives from one hospital noted that their managed service provider furnishes market reports on supplemental

[13]Representatives from two additional selected hospitals and two selected staffing agencies also described decreasing payment rates to supplemental RNs at the time we conducted interviews in mid-2023. Specifically, we conducted interviews with hospital and staffing agency representatives from June through October 2023.

nurse payment rates and supplemental nurse payments the hospital is making, which the hospital executives use to discuss ways to reduce costs.

Representatives from two hospitals said the cost of supplemental nurses increased because they were competing with hospitals across the nation. For example, representatives at one hospital said the high sign-on bonuses and rates paid to supplemental nurses did not increase the number of available nurses in the workforce. Rather, representatives explained, the increased compensation created incentives for nurses to leave the hospital's direct employment and work as supplemental nurses elsewhere. The representatives said this movement of nurses around the country made the hospital's workforce less stable and managing it took hospital staff time and energy away from caring for patients. Representatives from one staffing agency also noted the shift to nationwide competition for nurses. These representatives said as the entire country began experiencing COVID-19 surges (rather than in isolated geographic regions), competition for supplemental nurses became national. They explained this shift allowed nurses the opportunity to pursue the highest payment rate and often prompted hospitals to offer payment rates above the highest existing rate.

Example of a Staffing Agency's Gross Profit and Margins

AMN Healthcare is a publicly traded health care staffing agency and, as such, it releases annual financial reports. From 2019 through 2022, AMN reported increases in its gross profits, but a decrease in its gross margin. Specifically, AMN's gross profits increased from $743.5 million in 2019 to $1,716.7 million in 2022 and its gross margins decreased from about 34 percent in 2019 to about 33 percent in 2022.

AMN also reported gross margin for its nurse and allied health professionals (such as physical therapists and lab technicians) segment specifically, with gross margins decreasing from about 28 percent in 2019 to about 26 in 2022.

Source: GAO review of AMN Healthcare financial reports. | GAO-24-106447

Hospital representatives we spoke with raised concerns about the profits retained by external staffing agencies, while staffing agencies we spoke with told us that their profit margins declined during the pandemic. Specifically, representatives we interviewed from three hospitals said that the increases in the hospitals' hourly payments to staffing agencies were not passed on to supplemental nurses as increases in their hourly wages.

Also, the American Hospital Association reported that the margin retained by staffing agencies increased during the pandemic from an average of about 15 percent in 2019 to an average of about 62 percent in January 2022.[14] In contrast, an analysis by Staffing Industry Analysts and The National Association of Travel Healthcare Organizations reported that staffing agencies' gross margin percentage decreased from about 26

[14]See The American Hospital Association, *Massive Growth in Expenses and Rising Inflation Fuel Continued Financial Challenges for America's Hospitals and Health Systems* (Washington, D.C.: The American Hospital Association, 2022).

percent in 2018 to 23 percent in 2022.[15] Staffing agency representatives attributed the large increase in prices to the spike in demand for a finite number of nurses. In addition, representatives from one agency noted that the staffing agency market was not concentrated enough for individual agencies to affect prices and that states with rate caps in place waived them during the pandemic because those hospitals could not attract supplemental nurses.

Similar to what we found in the data provided by our six selected hospitals, California hospitals also reported increases in the average hourly cost paid for all nursing staff during the pandemic, with the rate of increase in the cost for supplemental nursing staff exceeding the rate of increase in cost for directly employed nurses. Of the California hospitals that used supplemental nursing staff,

- the total average hourly cost for directly employed RNs increased by about 10 percent, increasing from $58.70 in fiscal year 2019 to $64.70 in fiscal year 2022.
- the total average hourly cost for supplemental nursing staff increased by about 62 percent, increasing from $81.40 in fiscal year 2019 to $131.50 in fiscal year 2022. (See table 5.)

Table 5: Average Hourly Cost for Nursing Staff Reported by California Hospitals That Used Supplemental Nursing Staff, Fiscal Years 2019 to 2022

Type of nursing staff		Average hourly cost (in dollars)		Change (percent)
		Fiscal year 2019	Fiscal year 2022	
Directly employed nursing staff	Registered nurses	$58.70	$64.70	10%
	Licensed vocational nurses	$32.00	$34.60	8%
	Aides and orderlies	$21.80	$24.40	12%
Supplemental nursing staff[a]		$81.40	$131.50	62%

Source: GAO analysis of California Department of Health Care Access and Information, Hospital Annual Financial and Utilization data. | GAO-24-106447

Notes: We limited our analysis to short-term general and short-term children's hospitals that reported a full year of data. Totals are from all hospital units in these hospitals, which may include non-acute care units.

We excluded 31 Kaiser hospitals from our analysis that did not report staffing data for all 4 years in our review.

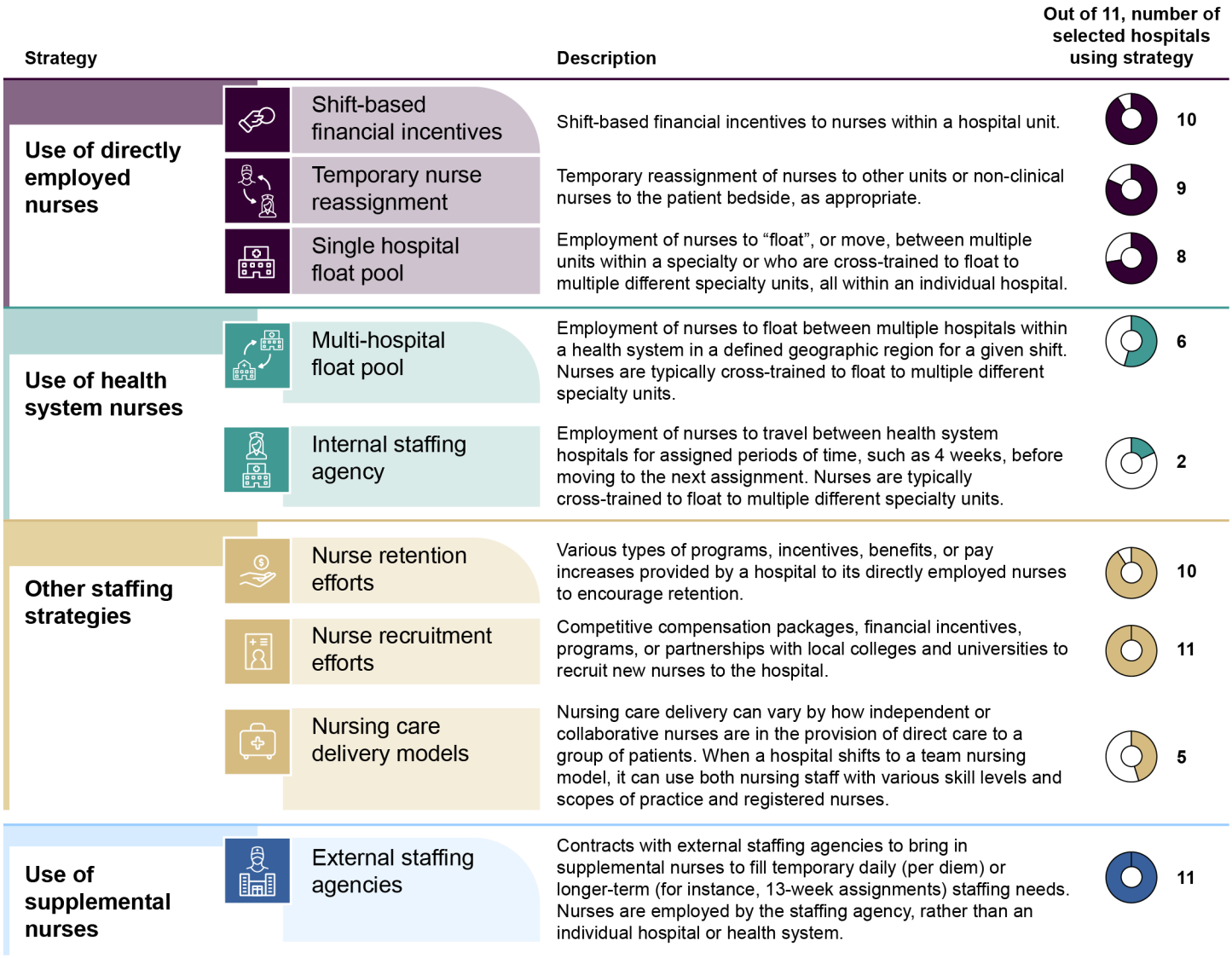
[15]Gross margin is the hourly rate the staffing agencies charge for a supplemental nurse, minus the total cost of sales, which includes licensing and medical benefits for the supplemental nurse. See Staffing Industry Analysts and National Association of Travel Healthcare Organizations' Travel Nurse Benchmarking Survey, *Historical Trends Report: Survey Years 2018 through 2023* (Mountain View, CA: Staffing Industry Analysts, 2023).

[a]In this report, we refer to the state's category of registry nursing personnel (which may include registered nurses, licensed vocational nurses, and aides and orderlies) as supplemental nursing staff.

Selected Hospitals Reported Using a Range of Strategies to Address Staffing Challenges

The 11 selected hospitals we interviewed for this review reported implementing a range of strategies to respond to staffing challenges in the COVID-19 pandemic. Specifically, representatives from the 11 selected hospitals described using nine types of new and pre-pandemic staffing strategies to address the increased and more complex nurse staffing needs of the pandemic. We categorized these nine strategies into four broader categories—hospital use of its directly employed nurses, hospital use of health system nurses, other hospital staffing strategies, and hospital use of staffing agencies. See figure 1 below for a description of each staffing strategy and appendix IV for more detailed information on how selected hospitals used each strategy, including changes during the pandemic.

Figure 1: Selected Hospitals' Reported Strategies for Responding to Staffing Shortages



Source: GAO analysis of interviews with representatives of 11 selected hospitals; RaulAlmu/stock.adobe.com (illustrations). | GAO-24-106447

Representatives from five hospitals described that they prioritized starting with their own directly employed nurses before moving to supplemental nurses when filling immediate staffing needs. For example, representatives from one hospital described first trying to fill staffing needs with their own nurses through financial incentives for extra shifts or the use of nurses from the hospital's own float pool (a group of nurses

who float across separate units within a single hospital), then bringing in nurses from other hospitals in the health system, when applicable, before contracting with supplemental nurses through external staffing agencies.

While facing staffing challenges during the pandemic, representatives from nine of the 11 selected hospitals reported they were able to avoid reductions in available beds or unit closures, aside from operating room closures early in the pandemic.[16] Representatives at seven of these nine hospitals credited their hospital's ability to maintain capacity to the increased use of supplemental nurses. For example, representatives from one hospital stated that without the help of supplemental nurses, the hospital's operating capacity and ability to care for patients would have been diminished.

In contrast, representatives from two selected hospitals stated that the hospitals struggled to meet staffing needs using the strategies discussed above, and as a result, had to make operational changes.

- One of the two hospitals closed its acute rehabilitation unit during the pandemic, which hospital representatives attributed to the high cost of both supplemental nurses and directly employed nurses.[17]
- Representatives from the other hospital stated that shortages in nurses reduced the number of beds the hospital could make available to patients, particularly at the beginning of the pandemic. According to hospital representatives, the hospital's owners at that time decided not to replace any nurses that left, which led the hospital to decrease

[16]Nine selected hospitals reported temporarily closing operating rooms or significantly limiting operating room capacity early in the pandemic. Hospital representatives indicated that these changes were often in response to certain state orders or recommended by some state hospital associations.

While none of our selected hospitals described furloughing or laying off nurses during the COVID-19 pandemic, representatives of a stakeholder organization and a few researchers we spoke with noted that many hospitals furloughed staff at the beginning of the pandemic when elective surgeries were put on hold. According to survey data, almost a quarter of the RN workforce experienced some form of employer-driven employment disruption during the pandemic, including forced leave, furloughs (with or without pay), and layoffs. See Department of Health and Human Services' Health Resources and Services Administration, National Center for Health Workforce Analysis, *Experience of Nurses Working During the COVID Pandemic – Data from the 2022 National Sample Survey of RNs* (March 2024).

[17]Hospital representatives noted that the acute rehabilitation unit was still closed at the time of our interview in August 2023. Representatives explained that as the hospital hired new nurses, it continued to assess whether to reopen the unit.

its capacity and transfer patients to hospitals outside of the immediate area. Representatives explained that the hospital changed owners in late 2020, and there was a shift in philosophy and hiring practices. The new owners increased their staffing levels through use of supplemental nurses while they converted the hospital into a regional medical center.

During the pandemic, some of the hospitals in our review also made other operational changes in response to the increase in patient volume and the change in patient needs. Specifically, representatives from five hospitals reported they opened new units or converted existing units to care for COVID-19 patients. Representatives from four hospitals also reported stopping new admissions when they reached capacity or being unable to transfer patients to other facilities in the region. For example, representatives from one hospital reported that they opened a second intensive care unit when they were not able to transfer patients who needed a higher level of care, such as a heart bypass machine.

Agency Comments

We provided a draft of this report to the Department of Health and Human Services for review and comment. The Department provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Health and Human Services, and other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-7114 or at GordonLV@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in Appendix V.

Leslie V. Gordon
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The Honorable Tracey Mann
House of Representatives

Appendix I: Information about Selected Hospitals

In order to describe hospitals' use of supplemental nurses from 2019 through 2022, we interviewed representatives from a nongeneralizable selection of 11 acute care hospitals. To select these hospitals, we used data from the Centers for Medicare & Medicaid Services to take a random sample of 121 of the 4,860 hospitals located in the 50 states and the District of Columbia as of December 2022. The hospitals in our sample included short-term acute care hospitals, critical access hospitals, and children's hospitals.[1]

We removed hospitals with hiring and staffing models that likely differed significantly from general acute care hospitals. These included hospitals owned and operated by the Department of Veterans Affairs, the Indian Health Service, and the Department of Defense, as well as specialty hospitals, emergency department-only hospitals, and outpatient-only facilities. Removing these hospitals resulted in a final sample of 108 hospitals.

We then reached out to the 93 hospitals for which we could find contact information to request an interview. Representatives from 11 hospitals accepted our invitation for interviews from July through October 2023. We cannot generalize our findings from the 11 hospitals to other hospitals.

The 11 hospitals we interviewed represent a variety of locations, health system affiliations, ownership types, and numbers of licensed beds. (See table 6.)

Table 6: Characteristics of Selected Hospitals

Characteristic	Number of selected hospitals (n = 11)
Hospital type	• Short-term general acute care hospital: 10 • Critical access hospital: 1 • Children's hospital: 0
Census region	• Northeast: 3 • South: 4 • Midwest: 4 • West: 0

[1]All other types of hospitals and other provider types were excluded. To select the random samples, we used the publicly available Centers for Medicare & Medicaid Services' December 2022 Provider of Services file, accessed on March 23, 2023, from https://data.cms.gov/provider-characteristics/hospitals-and-other-facilities/provider-of-services-file-hospital-non-hospital-facilities.

Characteristic	Number of selected hospitals (n = 11)
Location type	• Urban: 5 • Rural: 6
Health system affiliation	• Yes: 8 • No: 3
Ownership type	• For-profit: 1 • Nonprofit: 8 • State government: 2 • Other: 0
Number of licensed inpatient beds reported by the hospital during our data collection (July to November 2023)	• 100 beds or less: 4 • 101-250 beds: 5 • More than 250 beds: 2

Source: GAO summary of interviews with and data submitted by 11 selected hospitals. | GAO-24-106447

Note: Our random sample of 121 hospitals, from which we interviewed the 11 hospitals, included short-term acute care hospitals, critical access hospitals, and children's hospitals. None of the 11 hospitals that agreed to an interview were children's hospitals.

Data requested from selected hospitals. We requested data from the 11 selected hospitals on use of, spending on, and hourly cost for directly employed and supplemental nurses. We requested data from 2019 through 2022. Of the nine hospitals providing data, six provided data for all 4 years, and three were able to provide data for 1 or 2 years.[2] We reported data for the six hospitals that were able to provide data for all 4 years requested. These six hospitals reported minimal use of supplemental licensed vocational nurses or supplemental certified nurse aides, so we limited our analysis to registered nurses (RN). To analyze each hospital's

- use of supplemental nurses, we used data hospitals provided on inpatient nursing hours or inpatient nursing full-time equivalents for all directly employed nursing staff and all supplemental nursing staff.[3] This included information on the totals for all nurses (registered nurses, licensed vocational nurses, and certified nurse aides), as well as totals specifically for RNs.

[2]Three hospitals were able to provide data for 1 or 2 years. These hospitals were each acquired by a different health system during our period of review and were unable to provide data for years under the prior ownership, according to representatives from these hospitals. The other two hospitals did not provide us with the requested data.

[3]Our data request directed hospitals to indicate whether they were reporting inpatient nursing hours or inpatient nursing full-time equivalents. Of the six hospitals that provided all 4 years of data, four reported inpatient nursing hours and two reported inpatient nursing full-time equivalents.

- spending on inpatient nurse staffing, we used data hospitals provided on total spending for all directly employed nurse staff and directly employed RNs, as well as all supplemental nurse staff and supplemental RNs, specifically.[4]
- average hourly cost for inpatient nurse staff, we used data hospitals provided on all directly employed nurses and supplemental nurses (RN, licensed vocational nurses, and certified nurse aides), as well as specifically for RNs.[5]

Hospitals indicated whether they were reporting by fiscal year or calendar year. Of the six hospitals that provided all 4 years of data, two reported by fiscal year and four reported by calendar year. Both hospitals' fiscal years were July 1 through June 30.[6]

Additional information on use of and spending on RNs in selected hospitals. The use of, and spending on, supplemental RNs peaked later in the COVID-19 pandemic, with three of the selected hospitals showing a peak in 2021, and the other three hospitals showing a peak in 2022. (See tables 7 and 8.)

Table 7: Supplemental Registered Nurse (RN) Hours or Full-Time Equivalent Employees (FTE) in Selected Hospitals, 2019 – 2022

	Directly employed RNs				Supplemental RNs			
	2019	2020	2021	2022	2019	2020	2021	2022
Reported in FTEs								
Hospital A	476	469	462	478	15	18	22	31
Hospital D	451	407	360	349	20	32	49	48
Reported in hours								
Hospital B	230,935	226,063	206,839	220,096	304	12,711	21,904	16,270
Hospital C	149,696	147,512	145,958	138,229	782	0[a]	4,436	25,710

[4]Our data request directed hospitals to include, in spending on inpatient nurse staffing, the wages and salaries and benefits for directly employed nurses, and staffing agency costs for supplemental nursing staff. We directed hospitals not to include spending on hiring and retention efforts for directly employed nurses.

[5]Our data request directed hospitals to include, in their average hourly cost of inpatient nursing, the wages and salaries and benefits for directly employed nurses, and staffing agency costs for supplemental nursing staff. We directed hospitals not to include spending on hiring and retention efforts for directly employed nurses.

[6]The three hospitals that provided data for 1 or 2 years, reported by fiscal year (July 1 through June 30). The remaining two hospitals did not provide data.

	Directly employed RNs				Supplemental RNs			
	2019	2020	2021	2022	2019	2020	2021	2022
Hospital E	17,028	18,997	17,807	20,665	2,492	606	4,569	386
Hospital F	68,120	64,418	79,574	72,547	5,983	0[a]	19,119	28,647

Source: GAO analysis of data provided by six of GAO's selected hospitals. | GAO-24-106447

Note: Two of the six hospitals reported data by hospital fiscal year (defined as July 1 through June 30) and four of the hospitals reported by calendar year.

[a]Hospitals C and F did not use any supplemental RNs in 2020.

Table 8: Spending on Supplemental Registered Nurses (RN) in Selected Hospitals, 2019 – 2022

Dollars

	Directly employed RNs				Supplemental RNs			
	2019	2020	2021	2022	2019	2020	2021	2022
Hospital A	73,434,510	75,048,541	77,856,409	85,136,777	2,310,411	2,900,708	4,451,109	9,262,158
Hospital B	10,677,874	10,974,998	10,482,416	13,672,610	23,073	963,911	2,635,296	1,892,373
Hospital C	7,022,300	7,232,504	6,177,073	2,715,910	115,008	0[a]	1,184,965	5,542,664
Hospital D	43,600,000	42,700,000	39,900,000	41,700,000	2,400,000	5,300,000	11,100,000	9,300,000
Hospital E	735,311	985,197	1,000,577	1,036,659	178,911	53,256	463,122	47,548
Hospital F	2,470,292	2,556,276	3,407,177	3,814,395	348,708	0[a]	2,618,042	3,774,470

Source: GAO analysis of data provided by six of GAO's selected hospitals. | GAO-24-106447

Note: Two of the six hospitals reported data by hospital fiscal year (defined as July 1 through June 30) and four of the hospitals reported by calendar year.

[a]Hospitals C and F did not use any supplemental RNs in 2020.

Additionally, average hourly costs for directly employed RNs and supplemental RNs generally increased from 2019 to 2022, with the average hourly cost for supplemental RNs seeing a greater increase. (See table 9.)

Table 9: Average Hourly Cost for Registered Nurses (RN) in Selected Hospitals, 2019 – 2022

Dollars

	Directly employed RNs				Supplemental RNs			
	2019	2020	2021	2022	2019	2020	2021	2022
Hospital A	76.49	79.95	85.57	94.94	76.61	77.99	99.23	143.82
Hospital B	46.24	48.55	50.68	62.12	76.02	75.84	120.31	116.31
Hospital C	30.00	31.50	35.00	40.25	41.00	0[a]	70.00	150.00
Hospital D	35.59	37.82	37.77	40.55	57.35	79.51	108.50	93.14
Hospital E	43.18	51.86	56.19	50.17	71.80	87.82	101.37	123.18

	Directly employed RNs				Supplemental RNs			
	2019	2020	2021	2022	2019	2020	2021	2022
Hospital F	36.26	39.68	42.82	52.58	58.28	0[a]	136.93	131.76

Source: GAO analysis of data provided by six of GAO's selected hospitals. | GAO-24-106447

Notes: Two of the six hospitals reported data by hospital fiscal year (defined as July 1 through June 30) and four of the hospitals reported by calendar year.

The hourly cost to the hospital for a directly employed nurse includes the nurse's hourly wages, benefits, and payroll taxes. The hourly cost to the hospital for a supplemental nurse is the rate paid to the staffing agency. This rate includes both the nurse costs (including hourly pay rate, payroll taxes, and benefits) and operating expenses (the staffing agency's overhead costs) and earnings.

[a]Hospitals C and F did not use any supplemental RNs in 2020.

Appendix II: Information about California Hospitals

In order to describe hospitals' use of supplemental nurses from 2019 through 2022, we identified and examined available data from California hospitals that distinguished between directly employed and supplemental nursing staff. Specifically, we examined 2019 through 2022 data from hospital annual financial disclosure reports compiled based on the end of the fiscal year reported and publicly available from California's Department of Health Care Access and Information (California officials).[1] We limited our analysis to acute care hospitals, including short-term general or short-term children's hospitals that reported a full year of data, and excluded any hospitals that did not provide emergency services.[2]

We also excluded hospitals that did not report using supplemental nursing staff in a given year, and 31 Kaiser hospitals that reported data on the average hourly cost for the latter two years of our time period (fiscal years 2021 and 2022), but not in the first two years (fiscal years 2019 and 2020).[3] Following these exclusions, the number of California acute care hospitals that reported data for fiscal years 2019 through 2022 were 243, 238, 238, and 236, respectively. Our analysis of California hospital data is not generalizable to other states. In particular, California hospitals may

[1]Certain hospitals licensed by the California Department of Public Health must submit these reports. See Cal. Health and Safety Code § 128735 (2024). California officials told us that the data are self-reported and self-certified using an electronic system. While California officials conduct a desk audit on these reports—during which they check for reasonableness and comparability—before the data are made publicly available, it is possible that hospitals might not complete certain parts of the report.

These data were downloaded from https://data.chhs.ca.gov/dataset/hospital-annual-financial-disclosure-report-complete-data-set in April and October 2023. These data represent point-in-time snapshots of California hospital staffing.

Hospitals' fiscal years may vary. These reports were grouped by fiscal years ending from June 30, 2018, through June 29, 2019, as fiscal year 2019; June 30, 2019, through June 29, 2020, as fiscal year 2020; June 30, 2020, through June 29, 2021, as fiscal year 2021; and June 30, 2021, through June 29, 2022, as fiscal year 2022.

[2]We excluded hospitals that were identified in the data set as short- and long-term psychiatric care, short- and long-term specialty care, long-term general care, and long-term children's care. We also excluded hospitals for fiscal years where they did not report any registered nurse hours, or where they reported less than a year of data, which may be due to situations including changes in ownership or licensure.

[3]Most California hospitals (about 92 to 93 percent each fiscal year) reported using supplemental nurses.

Some California hospitals, including Kaiser hospitals, are not required to submit full annual reports, either by law or when a reporting modification has been granted, primarily when the data to be reported are not comparable to data filed by other hospitals. California officials told us that, until 2021, Kaiser hospitals had a long-time exemption from reporting some revenue data.

differ from hospitals in other states due to California's mandatory minimum nurse-to-patient staffing ratios that began in 2004.[4]

To understand the population of California hospitals in our analysis, we examined descriptive information on available facility characteristics. A majority of the hospitals were owned by a non-profit or church-based organization and almost half of the hospitals had more than 250 licensed beds. (See table 10.)

Table 10: Characteristics of California Short-term Acute Care Hospitals That Reported Using Supplemental Nursing Staff, Fiscal Year 2019 – 2022

Number (percentage)

	Fiscal year 2019 (n = 243)	Fiscal year 2020 (n = 238)	Fiscal year 2021 (n = 238)	Fiscal year 2022 (n = 236)
Type of ownership				
Church/Nonprofit	148 (61)	146 (61)	146 (61)	147 (62)
Investor	58 (24)	57 (24)	57 (24)	57 (24)
County or local government	37 (15)	35 (15)	35 (15)	32 (14)
Licensed inpatient beds				
100 beds or less	40 (17)	37 (16)	37 (16)	37 (16)
101 to 250 beds	98 (40)	98 (41)	92 (39)	92 (39)
More than 250 beds	105 (43)	103 (43)	109 (46)	107 (45)

Source: GAO analysis of California Department of Health Care Access and Information, Hospital Annual Financial and Utilization data. | GAO-24-106447

Notes: We limited our analysis to short-term general and short-term children's acute care hospitals that reported a full year of data. Totals are from all hospital inpatient units in these hospitals, which may include non-acute care units.

We excluded 31 Kaiser hospitals from our analysis that did not report staffing data for all 4 years in our review.

Variables of analysis. To analyze changes in

- the use of supplemental nurses across the 4 years from the California hospital data, we used data on nursing staff hours reported. For directly employed nursing staff hours, we used the variable "productive hours" for registered nurses (RN), licensed vocational nurses, and aides and orderlies, which are each reported separately.

[4]According to one researcher we interviewed who studies health care workforce trends in California, the heavily unionized environment differentiates California from other states and may reduce nurses' incentives to become supplemental nurses. Specifically, the researcher noted that there is a general perception of higher wages for directly employed hospital nurses and better hospital working conditions, such as nurse-to-patient ratios in California than in other regions of the country.

For supplemental nursing staff hours, we used the variable “contract hours,” which combines any reported hours for supplemental RNs, licensed vocational nurses, and aides and orderlies into a single variable.[5]

- nurse hourly costs, we used the variable “average hourly rate.” As with the prior variables, rates for directly employed RNs, licensed vocational nurses, and aides and orderlies are each reported separately. Rates for supplemental nurses combine any reported hourly rates for supplemental RNs, licensed vocational nurses, and aides and orderlies into a single variable.

We were not able to examine changes in California hospital spending on supplemental nurses because the state does not collect these data.

In our report, we present the mean value (or average), which may mask variation among hospitals. Some hospitals in our sample may report higher values and some may report lower values—of hours worked, and average hourly costs. As a result, the increase or decrease in use and hourly cost of nurses from 2019 through 2022 for some hospitals may be greater than or lower than the average values we present.

Additional information on California hospitals’ use of supplemental nurses. Among California hospitals reporting the use of supplemental nursing staff—which may have included RNs, licensed vocational nurses, and aides and orderlies—average annual hours decreased from 2019 to 2020 and increased from 2020 to 2022.[6] (See table 11.) Additionally, the average hourly cost for all types of nursing staff increased from 2019 to 2022, with the average hourly cost for supplemental nursing staff seeing a greater increase than for directly employed nursing staff. (See table 12.)

[5]In this report, we refer to the state’s category of registry nursing personnel (which may include RNs, licensed vocational nurses, and aides and orderlies) as supplemental nursing staff.

[6]The types of supplemental nurses are not broken out for hospitals.

Table 11: Hours Worked by Nursing Staff in California Hospitals That Reported Supplemental Nursing Staff Use, Annually, Fiscal Years 2019 – 2022

	Annual average hours worked			
Type of nursing staff	**Fiscal year 2019**	**Fiscal year 2020**	**Fiscal year 2021**	**Fiscal year 2022**
Directly employed nursing staff	655,688	671,221	732,453	707,887
Registered nurses	504,676	517,982	569,856	554,411
Licensed vocational nurses	28,097	25,039	25,866	21,588
Aides and orderlies	136,511	141,369	149,409	140,817
Supplemental nursing staff[a]	28,866	27,719	31,823	41,966

Source: GAO analysis of California Department of Health Care Access and Information, Hospital Annual Financial and Utilization data. | GAO-24-106447

Notes: We limited our analysis to short-term general and short-term children's acute care hospitals that reported a full year of data. Totals are from all hospital inpatient units in these hospitals, which may include non-acute care units. About 92 to 93 percent of these hospitals reported hours for supplemental nursing staff.

We excluded 31 Kaiser hospitals from our analysis that did not report staffing data for all 4 years in our review.

[a]In this report, we refer to the state's category of registry nursing personnel (which may include registered nurses, licensed vocational nurses, and aides and orderlies) as supplemental nursing staff.

Table 12: Average Hourly Cost for Nursing Staff Reported by California Hospitals That Reported Using Supplemental Nursing Staff, Fiscal Years 2019 – 2022

Dollars

Type of nursing staff		**Fiscal year 2019**	**Fiscal year 2020**	**Fiscal year 2021**	**Fiscal year 2022**
Directly employed nursing staff	Registered nurses	58.70	60.70	59.10	64.70
	Licensed vocational nurses	32.00	32.80	32.50	34.60
	Aides and orderlies	21.80	22.60	22.10	24.40
Supplemental nursing staff[a]		81.40	84.10	91.90	131.50

Source: GAO analysis of California Department of Health Care Access and Information, Hospital Annual Financial and Utilization data. | GAO-24-106447

Notes: We limited our analysis to short-term general and short-term children's acute care hospitals that reported a full year of data. Totals are from all hospital inpatient units in these hospitals, which may include non-acute care units.

We excluded 31 Kaiser hospitals from our analysis that did not report staffing data for all 4 years in our review.

The hourly cost to the hospital for a directly employed nurse includes the nurse's hourly wages, benefits, and payroll taxes. The hourly cost to the hospital for a supplemental nurse is the rate paid to the staffing agency. This rate includes both the nurse costs (including hourly pay rate, payroll taxes, and benefits) and operating expenses (the staffing agency's overhead costs) and earnings.

[a]In this report, we refer to the state's category of registry nursing personnel (which may include registered nurses, licensed vocational nurses, and aides and orderlies) as supplemental nursing staff.

Appendix III: Information from National Sample Surveys of Licensed Registered Nurses in 2018 and 2022

To describe the number of nurses working as supplemental nurses in hospitals prior to and during the COVID-19 pandemic, we analyzed publicly available data from two sample surveys of registered nurses (RN) collected by the Department of Health and Human Services' Health Resources and Services Administration in 2018 and 2022, the two most recent surveys at the time of our analysis.[1]

The data from the 2018 survey included a weighted study sample of an estimated 2.99 million licensed nurses (RNs and advanced practice RNs working in primary positions requiring RN licenses), of which about 1.17 million (about 39 percent) reported working in the hospital inpatient setting as of December 31, 2017. The data from the 2022 survey included a weighted study sample of an estimated 3.12 million licensed nurses, of which about 1.27 million (about 41 percent) reported working in the hospital inpatient setting as of December 31, 2021.[2]

We then analyzed data for the primary nursing position for RNs employed in a hospital inpatient setting, including those employed by a staffing agency.[3] We also analyzed how many RNs were employed by a staffing agency in their secondary nursing position, if applicable.[4] Comparisons between years are statistically significant at the 95 percent confidence interval unless otherwise noted.[5]

[1]See U.S. Department of Health and Human Services' Health Resources and Services Administration's *2018 National Sample Survey of Registered Nurses*, accessed on June 6, 2023, and *2022 National Sample Survey of Registered Nurses*, accessed on March 22, 2024, https://data.hrsa.gov/topics/health-workforce/nursing-workforce-survey-data. The two independent surveys provide point-in-time estimates. The National Sample Survey of RNs is not a longitudinal survey and does not track panels of the same nurses over time.

[2]To be consistent with the standard applied by the Department of Health and Human Services' Health Resources and Services Administration to ensure the statistical reliability of the estimates the agency presents of its survey data, all estimates we report have percent relative standard errors of less than 30 percent unless otherwise noted.

[3]The survey instructions categorized acute inpatient units, the emergency department, and other non-acute hospital units, including hospital-sponsored outpatient clinics, urgent care, and ancillary units, in its hospital employment setting type, but excluded other inpatient settings, such as mental health hospitals and nursing homes not located within a hospital. Our report focuses on inpatient units within the hospital setting type.

[4]Data on RNs working as supplemental nurses in secondary nursing jobs are not available by setting and may include RNs working in hospitals, other inpatient settings, ambulatory settings, or other settings.

[5]Statistical significance at the 95 percent level means that there is a 5 percent probability or less of the differences between estimated values being due to chance alone.

We assessed the reliability of these data by reviewing relevant agency data documentation, interviewing knowledgeable agency officials, and performing tests of the data to identify any outliers or anomalies. We determined that the data were sufficiently reliable for the purposes of our reporting objectives.

The percentage of hospital RNs working for staffing agencies increased more than four times during the COVID-19 pandemic, according to national survey data estimates. Specifically, approximately 2 percent of the estimated 1.17 million RNs whose primary position were in inpatient hospital settings were employed by staffing agencies in 2017 compared to approximately 10 percent of the estimated 1.27 million RNs working in inpatient hospital settings in 2021.[6] (See table 13.) These data likely underestimate the total number of RNs working as supplemental nurses in inpatient hospital settings as, according to the survey results, many RNs also held secondary positions as supplemental nurses. However, the estimates of RNs' secondary positions as supplemental nurses were not available by setting, so it was not possible to determine the total number of RNs working as supplemental nurses in inpatient hospital settings in those years.[7]

[6]While most supplemental hospital RNs worked in inpatient settings (about 82 percent in 2021), supplemental RNs also worked in the emergency department (about 12 percent in 2021) and other hospital settings, such as hospital-sponsored ambulatory or outpatient care and hospital-sponsored ancillary units (about 6 percent in 2021).

[7]RNs may be simultaneously employed in another, secondary, nursing position for pay. The number of supplemental RN positions filled at hospitals would include RNs working in primary positions as well as RNs working in secondary positions through staffing agencies. In 2017, about 1 percent of the estimated 2.99 million RNs working in a primary nursing job, regardless of setting, also worked one or more secondary jobs as a supplemental nurse employed by a staffing agency. In 2021, about 1 percent of the estimated 3.12 million RNs working in a primary job, regardless of setting, also worked one or more secondary jobs as a supplemental nurse employed by a staffing agency.

Table 13: National Estimates of Licensed Registered Nurses (RN) in Inpatient Hospital Settings, by Employment Type, 2017 and 2021

	December 31, 2017		December 31, 2021	
Employment situation	**Estimated number**	**Estimated percentage**	**Estimated number**	**Estimated percentage**
Employed by the hospital at which the RN worked	1,131,959	97	1,135,175	89
Employed by a staffing agency	28,190	2	129,570	10
Self-employed	6,715	1	—	—
Total	**1,166,865**	**100**	**1,272,584**	**100**

"— " indicates that data were suppressed to ensure statistical reliability because the percent relative standard error was greater than 30 percent.

Source: GAO analysis of the Department of Health and Human Services' Health Resources and Services Administration, 2018 National Sample Survey of RNs and 2022 National Sample Survey of RNs. | GAO-24-106447

Notes: This analysis was based on weighted study samples of RNs and advanced practice RNs working in a primary position requiring an RN license.

All reported estimates have percent relative standard errors of less than 30 percent, except as noted.

We calculated the 95 percent confidence interval for each estimated percentage and examined whether there was overlap between confidence intervals. The confidence intervals did not overlap between 2017 and 2021 for RNs employed by the hospital at which they worked or for RNs employed by a staffing agency, which suggests a statistically significant difference between estimates.

Researchers we interviewed, as well as representatives from a nursing stakeholder organization, discussed how the COVID-19 pandemic intensified the hospital work environment for nurses. For example, interviewees discussed concerns about nurse burnout, with stakeholder representatives and one researcher noting that nurses experienced higher levels of and more frequent feelings of burnout during the pandemic.[8] In addition, interviewees said that nurses experienced increases in workplace violence related to patients' and families' anger regarding pandemic restrictions. At the same time, researchers and stakeholder representatives noted that nurses' trust in the hospitals employing them was eroding. These interviewees said that some hospitals were putting nurses into vulnerable situations, including the following:

- sometimes being the only type of clinician going into COVID-19-positive patients' rooms,

[8]According to survey data, most RNs (about 89 percent of RNs who had been employed in the same position for at least a year and had experienced burnout) indicated that their feelings of burnout had increased during the pandemic. In addition, the report indicated that feelings of burnout became more frequent during the pandemic. See U.S. Department of Health and Human Services' Health Resources and Services Administration, National Center for Health Workforce Analysis, *Experience of Nurses Working During the COVID Pandemic – Data from the 2022 National Sample Survey of RNs* (March 2024).

- working multiple shifts in a row without sufficient rest,
- stretching nurse-to-patient ratios to potentially unsafe levels.

Researchers and stakeholder representatives we interviewed noted that these types of work environment issues likely pushed some nurses to leave the hospital setting or to leave the profession altogether.[9] It also may have made travelling as a supplemental nurse appealing to more nurses due to both the higher pay and the contractual relationship with the hospital.

[9]According to survey data, about 9 percent of RNs employed left their employer for another nursing job. In addition, about 5 percent of the RN workforce left the workforce altogether during the pandemic, most commonly due to working conditions, such as high-risk conditions, overwork or burnout, and inadequate staffing levels. See Health Resources and Services Administration, *Experience of Nurses Working During the COVID Pandemic*.

Appendix IV: Strategies Used by Selected Hospitals to Address Staffing Needs and Changes to the Strategies during the COVID-19 Pandemic

Representatives at the 11 selected hospitals we interviewed described using nine types of new and pre-pandemic staffing strategies to address the increased and more complex nurse staffing needs of the COVID-19 pandemic. We categorized these nine strategies into four broader categories—use of directly employed nurses, use of health system nurses, other staffing strategies, and use of supplemental nurses.

Use of Directly Employed Nurses

Selected hospitals described three staffing strategies that used their own directly employed nurses to meet staffing needs—shift-based financial incentives, temporary nurse reassignment, and single hospital float pools.

Shift-based financial incentives

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Shift-based financial incentives. To meet staffing needs, hospitals may provide shift-based financial incentives to its nurses within a unit. Representatives from 10 of the 11 selected hospitals discussed using this strategy. For example, one hospital paid nurses who worked an extra shift in their unit a $300 bonus for the pay period and another hospital paid nurses an extra $35 per hour when working one extra shift a week. Further, representatives from one hospital described extending financial incentives to nurses in supervisory roles, such as nurse directors, by offering bonuses to cover shifts providing patient care.

Representatives from one of these ten hospitals specifically noted that the hospital implemented this strategy in response to the COVID-19 pandemic—creating a program that paid premium rates to nurses who worked additional shifts. However, representatives from three other hospitals described how this strategy was less effective during the pandemic. For example, representatives from one hospital explained that prior to the pandemic, if they offered an incentivized overtime shift, it would draw volunteers. These same representatives recounted that during the pandemic they could not rely on the financial incentives to draw volunteers for overtime shifts. These representatives noted that nurse staff seemed to prioritize their time over the extra money, which was beneficial for the hospital's workforce but made meeting their staffing needs more challenging. In addition, representatives at two hospitals opined that their nurses became less likely to respond to financial incentives for additional shifts during the pandemic, due to exhaustion and burnout.

Temporary nurse reassignment

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Temporary nurse reassignment. Hospitals may temporarily reassign nurses that typically work in a specific unit to a different unit or reassign non-clinical nurses to work at the patient bedside, as appropriate. Representatives from nine of the 11 selected hospitals reported using this strategy when needed. Three of these nine hospitals described having this policy in place prior to the pandemic. Specifically, representatives from one of the hospitals stated that it was their hospital's expectation that nurses work in any unit that needed assistance, as appropriate, and the hospital offered its nurses cross-training for other units and specialties. Representatives from another hospital noted that, due to the hospital's small size, they expected nurses to move between like units or units where they have been cross-trained.

Six of these nine hospitals began temporarily reassigning nurses and two of the three hospitals that already had this strategy in place expanded their use of it to meet staffing needs during the COVID-19 pandemic. Representatives from these hospitals described two ways in which they used this strategy:

- During non-essential operating room closures early in the pandemic (in response to certain state orders or recommended by some state hospital associations), some hospitals temporarily reassigned their operating room nurses to other units. For example, representatives from one hospital noted that when reassigning operating room nurses to the intensive care unit, those nurses were not functioning as intensive care unit nurses, but they were able to use their competencies to assist the nurse team.
- Some hospitals temporarily reassigned non-clinical nurses or nurse leaders to the patient bedside when needed. For example, representatives from one hospital said certain times during the pandemic required creative staffing and an "all hands on deck" approach that included moving nurse coordinators and nurse administrators to the patient bedside. Representatives from another hospital described providing non-clinical nurses with a "crash course" orientation early in the pandemic so that they could assist intensive care unit nurses at the patient bedside.

Single hospital float pool

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Single hospital float pool. A single hospital float pool operates at the individual hospital level by employing a group of nurses to "float," or move, between multiple units within a specialty or who are cross-trained and oriented to float to multiple different specialty units. Representatives from eight of the 11 selected hospitals discussed using this strategy. Nearly all of the eight hospitals had their single hospital float pools in place prior to the start of the pandemic, and representatives from a few of the eight hospitals indicated that single hospital float pool nurses were paid more than nurses not in the float pool.

In response to COVID-19 pandemic staffing challenges, one of the eight hospitals created a single hospital float pool, and another hospital expanded its existing program:

- Representatives from the hospital that created a single hospital float pool did so later in the pandemic by cross-training some of their nurses to work in three separate units—the medical-surgical unit, the intensive care unit, and the emergency department—and then paying those float nurses an additional $15 per hour.
- Representatives from another hospital described expanding their hospital's float pool by adding a new part-time option to make it more attractive to the hospital's nurses.

Use of Health System Nurses

Selected hospitals described two staffing strategies that use nurses from other hospitals within its health system to meet staffing needs—multi-hospital float pools and internal staffing agencies.

Multi-hospital float pool

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Multi-hospital float pool. A multi-hospital float pool operates across hospitals within a defined geographical region, and within the same health system, by employing a group of nurses to float to whichever hospital they are needed for a given shift. These nurses are typically cross-trained and oriented to float to multiple different specialty units as well. Representatives from six of the eight selected hospitals that were part of a health system discussed using this strategy. For example, representatives at one hospital noted that nurses in the multi-hospital float pool received an additional $7 to $9 to their hourly base pay. Representatives at another hospital noted while the nurses they bring in from the multi-hospital float pool may not be familiar with their specific hospital, the nurses still worked under their health system. The representatives added that this alignment of nurse expectations across the health system made using this strategy to meet staffing needs more

desirable than contracting with supplemental nurses from external staffing agencies.

At the time of our interviews, two of the six hospitals were working with their health systems to develop multi-hospital float pools. While representatives at both hospitals discussed informally using float nurses from other nearby health system hospitals during the COVID-19 pandemic, they were in the process of formalizing the programs. For instance, representatives from one of the hospitals noted that nurses in this program would float between three hospitals and earn a $20 per hour premium to their hourly payment rate.

Internal staffing agency

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Internal staffing agency. An internal staffing agency operates within a health system and employs nurses to travel between system hospitals for assigned periods of time, such as 4 weeks, before moving to the next assignment at another hospital. These nurses are typically cross-trained and oriented to float to multiple different specialty units as well. Representatives from two of the eight selected hospitals that were part of a health system discussed using this strategy to meet their staffing needs.[1] They both compared their internal staffing agencies to the services provided by external staffing agencies and noted that participating nurses received premium pay similar to supplemental nurses from external agencies. However, they also both explained that the hospital and the health system were able to save money by eliminating the external staffing agency and its fees.

The health system of one of the two hospitals using internal staffing agencies created its program during the COVID-19 pandemic in response to staffing and cost demands. Specifically, hospital representatives stated that their internal travel program launched in January 2022, which coincided with a surge in COVID-19 cases, and, by the end of 2022, the hospital was using more internal agency staffing than external agency staffing. The representatives noted that nurses working for their internal staffing agency receive benefits and pay rates comparable with supplemental nurses, and the representatives reported saving 20 percent

[1]Representatives from one of the three selected hospitals that was not part of a health system described creating an internal supplemental staffing program in 2023 as an alternative to using supplemental nurses from external staffing agencies. Since the hospital was not part of a health system, representatives noted that the internal supplemental staff were usually from other organizations in the local area.

or more by running the program internally rather than using external staffing agencies.

Other Staffing Strategies

Selected hospitals described three other types of staffing strategies that they used to meet staffing needs—nurse retention efforts, nurse recruitment efforts, and changes to nursing care delivery models.

Nurse retention efforts

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Nurse retention efforts. To encourage nurse retention, hospitals may implement various types of programs, incentives, benefits, or pay increases to directly employed nurses.[2] Representatives from 10 of the 11 hospitals discussed using this strategy to meet their staffing needs. Representatives at four selected hospitals noted that their nurse payment rates and benefits packages have been competitive, even prior to the pandemic. For example, representatives from two hospitals noted that they periodically conduct market reviews of nurse payment rates and make payment adjustments, as appropriate, and representatives from the two other hospitals noted that higher education benefits were key to encouraging retention.

In response to COVID-19 pandemic staffing challenges, most of the 10 hospitals made changes or added to their retention efforts.

- A few hospitals provided retention bonuses to their directly employed nurses. For instance, representatives at one hospital explained that they chose to financially reward their staff who stayed with the hospital rather than direct that money toward recruitment. Representatives from another hospital noted that they used COVID-19-related state funds to provide qualifying staff with pandemic bonuses. Further, representatives from several hospitals noted increasing pay rates for directly employed nurses during the pandemic.
- A few hospitals developed new employee benefits or programs intended to increase retention. For example, one hospital rolled out an employee wellness program during the pandemic, which included dedicating certain spaces for employee breaks, and a new virtual mental health platform benefit available to both employees and their families. Representatives from another hospital reported that they accelerated their plans to open an on-site childcare center for employees during the pandemic. Further, a third hospital focused on

[2]In response to a question on whether COVID-19 vaccine mandates during the pandemic affected selected hospitals' ability to retain or hire nurses, representatives from all 11 selected hospitals said that the mandates had little or no effect.

reducing first-year nurse turnover by developing a nurse residency program—a year-long program for newly-graduated nurses hired by the hospital. Representatives noted that the program focuses on providing participants with both peer and mentor support.

Nurse recruitment efforts

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Nurse recruitment efforts. Hospitals may offer competitive compensation packages, financial incentives, or programs at the time of hiring to recruit new nurses or develop partnerships with local colleges and universities to create a "nurse pipeline" where newly graduated nurses are more likely to join the hospital's workforce. Representatives from all 11 selected hospitals discussed using this strategy to meet their staffing needs. Competitive compensation packages may dually serve to retain nurses, as previously described, and to recruit new nurses. Representatives from four selected hospitals stated that their nurse payment rates and benefits were competitive, even prior to the pandemic. In addition, representatives at most hospitals described established partnerships with local colleges and universities and several noted offering sign-on and referral bonuses to nurses prior to or during the pandemic to recruit nurses.

In response to staffing challenges during the COVID-19 pandemic, most hospitals adjusted or enhanced existing recruitment efforts or started new recruitment programs. For example:

- Representatives from one hospital with an established educational partnership described expanding the types of nurses they recruited. Prior to the pandemic, representatives said that the hospital only recruited nurses from four-year degree programs, but that during the pandemic they began recruiting nurses from two-year degree programs and then encouraged those nurses to use the hospital's educational benefits to continue their higher education. Representatives from another hospital said that they began offering free nursing school tuition to ancillary staff (personal care assistants, radiology technicians, etc.) during the pandemic. They noted that the program helps recruit ancillary staff, but in the long term, it will also provide new nurses who are already familiar with the hospital.
- Representatives from three hospitals noted that each hospital increased both its sign-on bonuses and referral bonuses during the pandemic. Representatives from a fourth hospital said that the hospital began offering sign-on bonuses to new hires during the pandemic. They noted that the bonuses had conditions in place to ensure that new hires worked a certain number of years in exchange for the bonus.

- Representatives from three hospitals described efforts to recruit supplemental nurses. Two of the three hospitals were focused on bringing back nurses who had left the hospital for supplemental employment. For instance, representatives from one of the hospitals described a health system-wide "welcome back home" campaign and noted that the effort recruited nurses who had more experience. The third hospital's efforts were broader—offering direct employment into the hospital's internal staffing agency to any supplemental nurses that had worked at the hospital (rather than only to nurses who had previously had direct employment at the hospital). Representatives said that 60 percent of these supplemental nurses offered a direct employment position within the hospital's internal staffing agency made the conversion, with some later converting to the hospital's standard permanent staff. Representatives credited their hospital's work environment for the program's success.

Nursing care delivery models

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

Nursing care delivery models. Nursing care delivery can vary by how independent or collaborative nurses are in the provision of direct care to a group of patients. The two predominant modes of nursing care delivery in most acute care settings are total patient care (one RN is mainly responsible for the complete care of a group of patients throughout a shift) and team nursing (a designated team of both RNs and other nursing staff with various skill levels and scopes of practice give care to a group of patients). To meet nurse staffing challenges, a hospital may decide to shift its approach to care delivery. Representatives from five of the 11 hospitals discussed using this strategy to meet their staffing needs. One of the five hospitals already used this strategy prior to the COVID-19 pandemic. Representatives stated that the hospital used licensed vocational nurses in addition to RNs in a team nursing model.[3]

Four of the five hospitals began using this strategy during the pandemic to meet their staffing needs and most continued to use the strategy at the time of our interviews. Specifically, representatives from three hospitals discussed shifting to a team nursing model by hiring licensed vocational nurses to work with RNs. For instance, representatives from one hospital explained that each nursing team consists of one RN, one licensed vocational nurse, and one patient care technician. That team provides care to 8 to 10 patients with the RN responsible for patient assessment

[3]Licensed vocational nurses have a 1-year degree, are licensed by the state, and typically provide routine bedside care, such as taking vital signs. RNs have at least a 2-year degree, are also licensed by the state, and are generally responsible for managing patient nursing care and performing complex procedures, such as starting intravenous feeding or fluids.

and the licensed vocational nurse responsible for performing tasks such as wound care, medication administration, and patient education. The representatives compared this to their prior model where the RN provided total patient care with the assistance of one patient care technician. Under that model, the RN and technician would be assigned six patients, at most, with a target goal of four to five patients.

Use of Supplemental Nurses

Selected hospitals described contracting with external staffing agencies to bring in supplemental nurses to fill temporary daily (per diem) or longer-term (for instance, 13-week assignments) staffing needs.

External staffing agencies

Source: RaulAlmu/stock.adobe.com. | GAO-24-106447

External staffing agencies. Representatives from all 11 selected hospitals discussed using this strategy to meet their staffing needs. Representatives from 10 of the 11 hospitals described contracting with external staffing agencies to bring in supplemental nurses at least occasionally prior to the COVID-19 pandemic, often to fill planned long-term absences such as parental leaves. Early in the pandemic, along with various combinations of other staffing strategies, six of these 10 hospitals continued to use supplemental nurses at rates similar to before the pandemic while two of these 10 hospitals decreased their use of supplemental nurses in 2020 and the remaining two hospitals increased their use of supplemental nurses in 2020. Further, the hospital that did not use supplemental nurses prior to the pandemic began to do so in 2021.

As the pandemic continued, hospital representatives of all 11 hospitals described increasing their reliance on supplemental nurses even as hourly costs for these nurses also increased. For example:

- Representatives at one hospital stated that as the pay rates for supplemental nurses increased across the country, some of their nurses left the hospital to work for external staffing agencies. They explained that at the same time that nurses were leaving the hospital, it also became more difficult for the hospital to recruit directly employed nurses to replace them. So as the pandemic continued, the hospital hired more supplemental nurses to maintain operating capacity.
- Representatives at another hospital described using other staffing strategies during the first year of the pandemic, such as temporarily reassigning their operating room nurses to assist in the intensive care unit while non-essential surgeries were suspended. When the hospital's operating rooms reopened in the summer of 2020, those nurses returned to their units. According to this hospital's representatives, as the pandemic continued into its second and third

years the hospital's staffing challenges compounded, leading to the hospital bringing on more supplemental nurses to meet the community's needs.

Appendix V: GAO Contact and Staff Acknowledgments

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Staff Acknowledgments

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