



California Health Care Foundation



Is Bigger Better?

Exploring the Impact of System
Membership on Rural Hospitals

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About the Authors

Glenn Melnick, PhD, is Blue Cross of California Chair in Healthcare Finance and Professor of Public Policy at the University of Southern California. Katya Fonkych, PhD, is a research associate at the University of Southern California.

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Introduction

Rural hospitals play a critical role in delivering essential health care services to a significant portion of California’s residents. In 2016, 59 rural hospitals, located in 36 of the state’s 58 counties, provided a wide range of long-term, acute, maternity, emergency, and primary care to more than two million patients. On average, these patients were sicker, older, and more vulnerable than their counterparts in California’s urban areas, and much more likely to be covered by Medicare and Medi-Cal than by commercial insurance.

Despite their crucial role, some of California’s rural hospitals seem financially precarious — in 2015, 8 of the state’s 59 rural hospitals reported negative net income. Consistent losses increase the likelihood that a facility will close, a fate shared by nearly a quarter of the state’s rural hospitals over the past 20 years. In response, several rural hospitals have received special designation from the federal government making them eligible for enhanced Medicare reimbursement, and legislation pending in the California legislature would increase Medi-Cal payment to rural facilities.¹

Single hospitals joining multihospital systems has been another response. Currently, 19 of the state’s rural hospitals have attempted to alleviate financial pressure by joining a system composed of at least two other hospitals. The formation and growth of these arrangements is not unique to California’s rural areas, nor to the state as a whole.² But while the impact of multihospital systems on the prices health insurers — and ultimately, consumers — pay is well documented, less is known about their consequences for the financial health and care integration patterns of rural facilities.³

This study explores how system membership impacts the financial performance and transfer patterns of rural hospitals in California. It examines which rural hospitals are in systems, the extent to which rural hospitals receive direct subsidies or other financial benefits from their system, and whether joining a system increases or decreases the likelihood of a rural hospital remaining open. Importantly, it also examines evidence for the impact of system membership on transfer patterns, which bears on care quality, safety, and patient experience.

These findings may help inform policymakers at the state and federal level as they seek to address negative

consequences of hospital system formation on consumers broadly, while also ensuring access to care in rural areas. The brief concludes with a discussion of policy implications and areas for further study.

Rural Hospitals Play an Important and Unique Role in California

Where Are They?

California has a significant rural land mass spread over most of the state. Serving many of these areas are 59 rural hospitals in 36 counties, several of which are the sole acute care facility within an entire county (Figure 1). For the purposes of this brief, hospitals are considered “rural” if they are designated a “small and rural hospital” under California Health and Safety Code § 124840 and/or a “rural general acute care facility” under California Health and Safety Code § 1250, both of which consider a hospital’s number of acute care beds and its census area’s population density.

Figure 1. Rural Hospitals, by County



Note: See Appendix B for a list of hospitals.

Source: OSHPD Financial Disclosure Reports, 2016.

Whom Do They Serve?

Patient populations served by rural hospitals in California are quite different than those served by urban and suburban hospitals.⁴ Overall, patients treated by rural hospitals tend to be older, sicker, more likely to be disabled, and more likely to be covered by Medicare and Medi-Cal than patients treated in other areas.

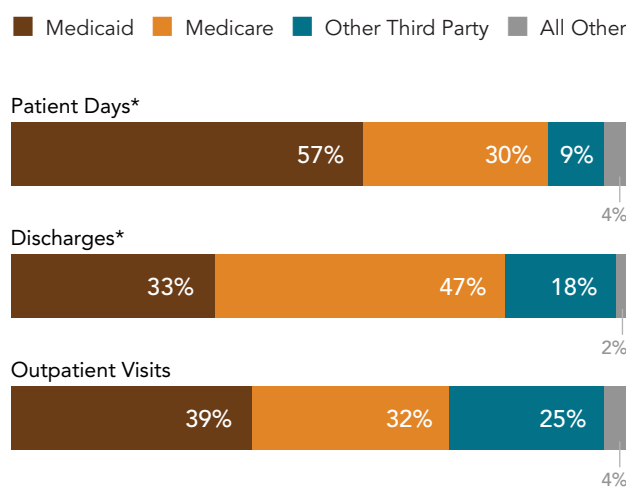
Figure 2 summarizes the volume of inpatient (IP) and outpatient (OP) services provided by California’s rural hospitals by source of payment for 2016. While the two largest payer groups are Medicare (47% of total IP, 32% of OP) and Medi-Cal (33% of total IP, 39% of OP), the commercially insured population uses OP services nearly as much (25% of total) as do Medicare and Medi-Cal patients.

What Types of Care Do They Deliver?

Rural hospitals are quite variable in their primary focus and mix of services (Table 1). More than 40% of rural hospitals provide long-term care (LTC), such as skilled nursing and rehabilitation, as their primary service; 46%, however, have no LTC beds and focus entirely on acute care. Regardless of primary focus, the number of emergency room (ER) visits per year is significant for all rural hospitals. Similarly, rural hospitals fulfill a crucial function in providing local maternity services.

Many rural hospitals also serve as the anchor for primary care in their communities. Office of Statewide Health Planning and Development (OSHPD) financial disclosure reports show that in addition to 1.2 million ER visits, rural hospitals provided 2.2 million outpatient clinic visits. Furthermore, a recent study found that of the 271 rural

Figure 2. Rural Hospital Payer Mix, by Service Type, 2016



*Excludes nursery.

Source: OSHPD Financial Disclosure Pivot Data, 2016.

health clinics in California — another crucial source of primary care for the state’s rural residents — 48% were owned and operated by rural hospitals.⁵

How Are They Organized?

California’s rural hospitals have evolved with diverse organizational and control structures. System hospitals are those owned or affiliated with a multihospital system. Nonsystem hospitals may either be freestanding and unaffiliated independent hospitals, or district hospitals owned or controlled by a special local government entity. Differences in control structures can have important implications for the management, administration,

Table 1. Rural Hospitals Provide a Limited but Important Set of Services

FOCUS OF CARE	RURAL HOSPITALS		NUMBER OF BEDS			% ALL DAYS LTC	DAILY CENSUS	ER VISITS	HOSPITALS WITH MATERNITY	TOTAL DELIVERIES
	Number	% Total	Available	LTC	Acute		Acute			
Primarily LTC	24	41%	83	59	27	84%	9.53	11,690	8	129
Some LTC	8	14%	54	10	45	19%	21.85	16,036	6	234
No LTC	27	46%	56	0	58	0%	27.51	26,414	21	492
Total	59	100%								

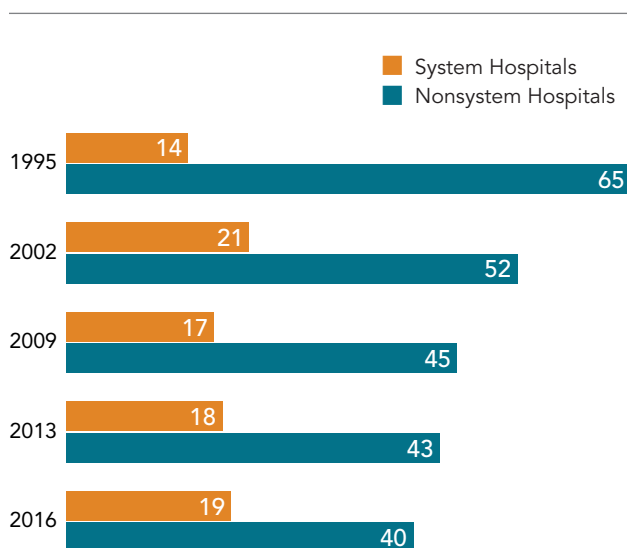
Notes: Long-term care is LTC. All figures are averages unless otherwise noted.

Source: OSHPD Financial Disclosure Pivot Data, 2016.

and financial operation of rural hospitals. A list of rural hospitals by control structure is included in Appendix A.

There has been a long-term trend toward the formation and expansion of multihospital systems in California. In 1995, 39% (134 of 345) of California’s hospitals were part of a system, while today that figure is 59% (165 of 282). Rural hospitals have been similarly affected by this trend but to a lesser degree: Rural hospitals that are part of multihospital systems have increased from 14 (18% of the total) in 1995 to 19 (47% of the total) in 2016 (Figure 3). A list of rural hospitals that are and are not part of systems is included in Appendix B.

Figure 3. System vs. Nonsystem Hospitals, 1995 to 2016, Selected Years



Source: OSHPD Financial Disclosure Pivot Reports, 1995–2016, selected years.

How Are They Doing Financially?

Financial stability is a constant challenge for rural hospitals, which tend to have lower patient volume and lower annual operating budgets than their urban and suburban counterparts. In 2015, median net revenue across all 59 rural hospitals was \$57,197,850, compared to median net revenue of \$218,658,974 among California’s other acute care hospitals. Hospitals with smaller budgets tend to have greater financial volatility since even small negative deviations from expected results can have a significant impact on their financial performance.

Another important measure of a hospital’s financial status and stability is net income over time. Table 2 summarizes trends in net income over a 21-year period for the 59 rural hospitals that were operating as of 2016. Overall, these data paint an improving picture, with cumulative net income across all rural hospitals growing from \$43 million in 1995 to more than \$368 million in 2015, and a substantial increase in net income as a percentage of operating revenue.

While the overall average was positive in all years, certain hospitals within the sample had negative margins in a given year. The number of rural hospitals with positive net income margins in 2015 was 51, the largest number in the study period. At the same time, however, about 15% of rural hospitals reported negative margins in 2010 and 2015.

Without a large share of commercially insured patients, rural hospitals that serve primarily Medi-Cal and Medicare patients face especially pronounced financial challenges.

Table 2. Financial Status of Rural Hospitals Has Improved but Remains Fragile, 1995 to 2015, Selected Years

	1995	2000	2005	2010	2015
Cumulative Net Income (N=59)	\$43,140,742	\$13,749,490	\$92,317,850	\$234,891,993	\$368,193,241
Average Net Income per Hospital	\$731,199	\$233,042	\$1,564,709	\$3,981,220	\$6,240,563
Number of Hospitals: Positive Margin	50	42	46	50	51
Number of Hospitals: Negative Margin	9	17	13	9	8
Total Operating Revenue	\$1,020,840,330	\$1,209,771,556	\$2,067,110,700	\$3,052,564,110	\$4,028,638,225
Net Income % Operating Revenue	4%	1%	4%	8%	9%

Source: OSHPD Financial Disclosure Pivot Reports, 1995–2015, selected years.

Table 3. Rural Hospitals Reporting Negative Income, 2015

	CONTROL TYPE	NET LOSS	COMMERCIALY INSURED (% PATIENTS)
Hi-Desert Medical Center	S	-\$9,788,223	9%
Colusa Regional Medical Center	I	-\$4,807,428	2%
Ojai Valley Community Hospital	I	-\$2,252,758	0%
Mendocino Coast District Hospital	D	-\$2,211,116	12%
Southern Inyo Hospital	D	-\$2,201,766	0%
Oak Valley District Hospital	D	-\$1,594,982	2%
Hazel Hawkins Memorial Hospital	D	-\$954,325	2%
Surprise Valley Community Hospital	D	-\$422,665	0%
Total cumulative loss		-\$24,233,263	
Average loss per hospital		-\$3,029,158	

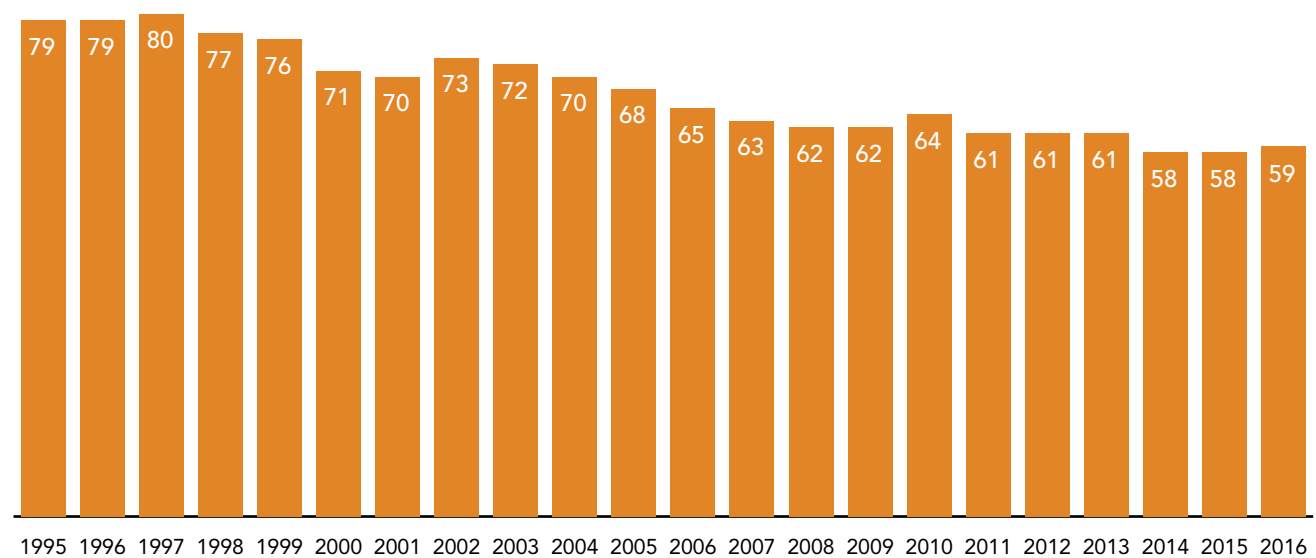
*Control types: district (D) independent (I), and system (S).
Source: OSHPD Financial Disclosure Pivot Reports, 2015.

Table 3 lists the eight rural hospitals that reported negative income in 2015 and shows their very low share of commercially insured patients.

Long-term negative net income can result in rural hospital closures, depicted in Figure 4. Over the 21-year period, the total number of rural hospitals in California declined from 79 to 59, a reduction of over 25%. Closures occurred from 1995 to 2005 (11 hospitals) and from 2005 to 2011 (7 hospitals). While the number of rural hospitals has been more stable in the last five years, falling from 61 in 2011 to 59 in 2016, recent news reports indicate two rural hospital bankruptcies in 2017, underscoring the ongoing financial pressure on this sector of hospitals.⁶

Over the 21-year period, the total number of rural hospitals in California declined from 79 to 59, a reduction of over 25%.

Figure 4. Number of Rural Hospitals Has Declined Over Time, 1995 to 2016



Source: OSHPD Financial Disclosure Reports, selected years.

System Membership May Impact the Financial Health of Rural Hospitals

It has been hypothesized that system membership improves the financial performance and stability of rural hospitals in several ways, including increased administrative efficiency through centralized purchasing, accounting, finance, and insurance; lower capital costs through access to systemwide credit; direct financial subsidies from profitable system members; and higher commercial reimbursement rates through increased bargaining leverage.

While previous academic research has been limited, it does appear to challenge several parts of this hypothesis. One recent national study found that rural hospitals being acquired between 2005 and 2012 did not experience significant increases in capital, relief from debt, or improvement in bottom-line profitability.⁷ There were no significant changes in the amount of debt financing among the rural hospitals that merged. Weak but statistically detectable evidence for reductions in rural hospitals' operating margins were found.

System Membership and Financial Performance of Rural Hospitals

Table 4 offers a picture of trends in average annual net income for six rural hospitals in California that joined systems over the last 20 years, showing financial performance in the two years prior to and the four years following joining the system. No clear pattern emerges in this very small sample. Two (St. Elizabeth and Sierra Nevada) reported consistently positive net income before, during, and after the merger. Two others (Mark Twain and Redwood) reported both positive and negative income, while one (Redbud) reported negative income in almost every year.

Another mechanism, unrelated to system membership, that may impact the financial performance of small rural hospitals is conversion to Critical Access Hospital (CAH) status. The CAH program is run by the federal government and provides eligible facilities with cost-based reimbursement for Medicare patients.⁸

Table 4. Trends in Net Income of Rural Hospitals Before and After Joining a System

	JOINED SYSTEM	2 YEARS BEFORE	1 YEAR BEFORE	YEAR JOINED	1 YEAR AFTER	2 YEARS AFTER	3 YEARS AFTER	4 YEARS AFTER
St. Elizabeth Community Hospital	1996	NA	\$701,282	\$4,133,096	\$3,710,492	\$2,899,639	\$3,581,807	\$4,891,104
Redbud Community Hospital*	1997	-\$2,504,853	-\$436,517	-\$195,203	-\$817,725	\$172,793	-\$2,296,166	-\$2,192,244
Redwood Memorial Hospital	2000	-\$1,201,122	\$795,198	\$466,489	\$286,294	-\$528,652	\$443,264	\$1,943,822
Mark Twain St. Joseph's Hospital	2000	\$773,747	-\$312,096	\$1,023,459	\$787,302	\$783,873	-\$97,943	\$614,455
Sierra Nevada Memorial Hospital	2000	\$10,457,639	\$5,957,780	\$4,054,037	\$6,348,818	\$3,737,956	\$5,430,215	\$2,603,205
Sierra Kings Hospital	2013	\$121,818	-\$1,889,584	-\$6,388,800	-\$2,616,653	\$3,656,973	\$449,753	\$317,245
Number of hospitals with negative margins		2	3	2	2	1	2	1

*Renamed St. Helena Hospital Clearlake in November 2008.

Source: OSHPD Financial Disclosure Reports, selected years.

Table 5 lists the 20 independent, nonsystem rural hospitals with the lowest financial performance in a five-year period (2006 to 2010) in terms of cumulative net income and compares their cumulative net income in the following five-year period (2011 to 2015). The list includes 13 hospitals that converted to CAH status and 7 independent, non-CAH rural hospitals.

Fifteen of the 20 hospitals showed improved financial performance, including 11 of the 13 hospitals that had converted to CAH status. Financial performance is widely distributed even within this small sample, with some reporting relatively large cumulative net incomes while others reported smaller positive margins or losses within the same periods.

System Membership and Direct Financial Support to Rural Hospitals

California hospitals are required to report data to OSHPD related to intercompany transfers that affect hospital balance sheets. This could show any direct financial support that rural system hospitals receive from their systems. However, current reporting rules give hospitals wide discretion in recording and reporting such transactions, meaning that these particular OSHPD data are not fully reliable indicators of such support.

Interviews with hospital chief financial officers (CFOs) indicate that intercompany transfers reported to OSHPD may relate to changes in equity accounts, represent short- or long-term loans that are repaid or, in some rare cases, loans that are forgiven. Short- or long-term loans are generally made to allow rural hospital system members to access outside credit markets under better terms, and then the loans are repaid to the system. This anecdotal finding runs counter to the published academic work on the subject.⁹

As shown in Appendix C, the current reporting methodology does not distinguish among these types of transactions in California. As systems become ever more salient features of the state's health care landscape, policymakers could revise reporting requirements in order to gain a better understanding of the flow of funds between hospital members and their overall systems, including the extent to which rural hospitals are dependent on direct financial subsidies.¹⁰

Table 5. Trends in Net Income of Independent, Nonsystem Rural Hospitals, 2006 to 2015

	CUMULATIVE NET INCOME		CHANGE
	2006–2010	2011–2015	(+/-)
Non-Critical Access			
George L. Mee Memorial Hospital	-\$5,513,113	\$15,113,520	+
Glenn Medical Center	\$62,025	\$1,112,241	+
San Geronio Memorial Hospital	\$1,265,598	\$3,719,126	+
Plumas District Hospital	\$3,013,275	\$4,012,892	+
Mendocino Coast District Hospital	-\$1,067,538	-\$3,839,625	-
Southern Inyo Hospital	\$45,726	-\$1,468,757	-
Colusa Regional Medical Center	\$766,073	-\$419,207	-
Critical Access Hospitals			
Modoc Medical Center	-\$8,845,794	\$2,937,777	+
Mountains Community Hospital	-\$4,966,415	\$2,160,625	+
Mayers Memorial Hospital	-\$4,418,334	-\$1,326,444	+
Orchard Hospital	-\$871,409	-\$92,341	+
Kern Valley Hospital District	-\$696,902	\$259,012	+
Trinity Hospital	-\$242,713	\$1,992,733	+
Seneca Healthcare District	-\$226,240	\$535,569	+
Eastern Plumas Health Care	-\$85,412	\$2,336,690	+
John C. Fremont Healthcare District	-\$71,658	\$2,128,124	+
Jerold Phelps Community Hospital	\$1,015,821	\$2,765,013	+
Catalina Island Medical Center	\$2,872,223	\$1,529,335	+
Bear Valley Community Hospital	-\$1,937,348	-\$3,866,091	-
Surprise Valley Community Hospital	-\$303,650	-\$1,967,999	-

Source: OSHPD Financial Disclosure Reports, selected years.

System Membership Appears to Have a Limited Effect on Rural Hospital Transfer Patterns

Several stakeholders have hypothesized that hospital system consolidation improves clinical quality and patient outcomes by virtue of specialization in certain services and better coordination across the care continuum. Empirical research on these potential benefits, however, provides a very mixed picture of whether, and to what extent, system hospitals provide better clinical

quality or care coordination for patients.¹¹ Further, none of the existing evidence base focuses specifically on rural hospitals that are part of systems.

The feasibility of coordination and integration of care between facilities within the same system depends in part on the geographic location of member hospitals within that system. When hospitals within the same system are physically close together, it is more likely that they will be able to integrate and regionalize specialized care by keeping transferred patients within their system.

Table 6 summarizes data that measure the capacity of rural hospitals in California to coordinate care within their systems as a function of distance between rural hospitals

Table 6. Driving Time to Five Closest Acute Care Hospitals from Rural System Hospitals ■ Nearest hospital in the same system

HOSPITAL NAME	SYSTEM NAME	RANK OF CLOSEST HOSPITAL IN SAME SYSTEM	DRIVING TIME TO FIVE NEAREST ACUTE CARE HOSPITALS (IN MINUTES)				
			1	2	3	4	5
Redwood Memorial Hospital	St. Joseph Health System	1	32	42	130	158	211
Hi-Desert Medical Center	Tenet Healthcare	1	51	58	59	68	79
Twin Cities Community Hospital	Tenet Healthcare	1	27	27	57	94	105
St. Helena Hospital – Clearlake	Adventist Health Systems	2	37	62	72	78	80
St. Elizabeth Community Hospital	Dignity Health	3	34	39	40	44	48
Mark Twain Medical Center	Dignity Health	4	25	44	58	63	74
Adventist Medical Center – Hanford	Adventist Health Systems	4	25	30	45	49	50
Ukiah Valley Medical Center	Adventist Health Systems	4	41	53	70	72	82
Mercy Medical Center Mt. Shasta	Dignity Health	4	42	66	69	71	95
Adventist Medical Center – Reedley	Adventist Health Systems	5	36	37	40	42	50
Memorial Hospital Los Banos	Sutter Health	6	53	55	57	67	67
Sierra Nevada Memorial Hospital	Dignity Health	7	28	47	51	52	70
Sutter Amador Hospital	Sutter Health	9	24	50	50	53	67
Sutter Coast Hospital	Sutter Health	>10	89	105	128	192	192+
Sutter Lakeside Hospital	Sutter Health	>10	37	41	76	92	93
St. Mary Medical Center – Apple Valley	St. Joseph Health System	>10	6	13	36	45	46
Victor Valley Global Medical Center	KPC Healthcare	>10	4	8	34	42	43
Sonora Regional Medical Center – Greenley	Adventist Health Systems	>10	45	64	67	68	70

Notes: Rank based on straight line (latitude/longitude) distances. Driving time based on Google Maps distances.

and other system member hospitals. In general, most rural system hospitals are not very close to another acute care hospital that is part of the same system. Only three of the rural system hospitals have a same-system hospital member as the closest neighboring hospital, and two other rural hospitals have either the second or third closest hospital as a member in the same system.

How Many Transfers?

OSHPD patient-level discharge data show the frequency of transfers by rural system hospitals. Table 7 summarizes transfers from rural hospitals to other acute care hospitals for 2011 and 2014. On average, in 2011, all rural hospitals combined treated 249 patients per month and transferred slightly more than nine patients per month, for an average transfer rate of 3.7%. Rural hospitals that were part of a system transferred patients at a slightly lower rate than nonsystem rural hospitals. The data for 2014 exhibit similar patterns.

Table 7. Total Monthly Inpatient Discharges and Transfers from Rural Hospitals, 2011 and 2014

	DISCHARGES*	TRANSFERS*	TRANSFER RATE
Total 2011	249	9.1	3.7%
System	381	12.7	3.3%
Nonsystem	141	5.7	4.0%
Total 2014	207	8.1	3.9%
System	351	11.4	3.3%
Nonsystem	105	5.0	4.8%

*Average per month.

Source: OSHPD Patient Discharge Data, 2011 and 2014.

Who Is Getting Transferred?

Low birth weight and other neonatal infants are the largest group of patients (2011) transferred from rural hospitals to other acute care hospitals. Infants with low birth weight generally require treatment in highly specialized neonatal intensive care units, which are available in only a limited number of California hospitals and not in any rural hospitals. System rural hospitals transferred

an average of 14 infants per year while nonsystem rural hospitals transferred eight infants per year (Table 8). The total number of infant transfers for the year was 237 for the system hospitals and 354 for the nonsystem hospitals.

Table 8. Transfers of Neonatal Infants from Rural Hospitals, by Hospital Type, 2011

	TOTAL*	AVERAGE PER HOSPITAL
System hospital (n=17)	237	13.9
Nonsystem hospital (n=44)	354	8.0
Total	591	9.7

*Total neonatal infants transferred in 2011 defined as DRG 789 by Centers for Medicare & Medicaid Services Definitions Manual.

Source: OSHPD Patient Discharge Data, 2011.

Where Are They Transferred?

Transfers of neonatal infants from rural system hospitals to hospitals that are part of the same system are very limited (Table 9).¹² Of the 83 neonatal infants covered by commercial insurance in 2011, more than half (53%) went to nonsystem hospitals, while another third (34%) went to teaching hospitals or hospitals that are part of other systems. The total number of transfers during the year to other acute care hospitals within the same system was only 11. This small number of transfers to same-system hospitals is likely related to the fact that most rural hospitals that are part of systems are not close to another hospital in the same system.

Table 9. Neonatal Transfers from Rural System Hospitals, Commercially Insured Patients, 2011

	TOTAL	PERCENT
Total neonatal transfers	83	100%
Transfers to a nonsystem hospital	44	53%
Transfers to a teaching hospital or a different system	28	34%
Transfers within the same system	11	13%

Source: OSHPD Patient Discharge Data, 2011.

Discussion and Policy Implications

Like rural hospitals across the United States, California's rural hospitals operate under complex and changing conditions, and because of their small size they often struggle for financial stability and long-term viability. This struggle is underscored by the fact that in 2016 California had 20 fewer rural hospitals than it did in 1995. Fortunately, the overall financial status of rural hospitals appears to have improved and become more stable in recent years: Cumulative net income across all 59 rural hospitals has grown to over \$368 million, and the number of rural hospitals with negative net income is the lowest it has been over that 20-year period.

One of the strategies that some rural hospitals have pursued to gain stability is to join multihospital systems; currently, 19 rural hospitals are part of multihospital systems. One potential benefit to rural hospitals in joining a system is the opportunity to improve financial performance and stability by sharing administrative costs with their system and accessing credit on more favorable terms. Analysis of the small number of hospitals that joined systems provides a mixed picture. The financial status of one rural hospital that joined a system improved substantially after joining. Meanwhile, two rural hospitals were profitable before and after joining, two others show mixed results, and one consistently reported negative net income both before and after joining a system.

Whatever the impact, system membership is not the only route to financial sustainability. Among the 20 independent, freestanding rural facilities with the lowest cumulative net income over a five-year (2006 to 2010) period, three-quarters improved in the subsequent five years. Receiving critical access hospital designation and the consequent enhanced Medicare payments helped several nonsystem facilities. Expansion of insurance coverage under the Affordable Care Act also likely played a role. Regardless of system or critical access status, Medi-Cal revenue is crucial to the state's rural hospitals, particularly among those that reported negative net revenue in 2015.

Another potential benefit of system membership is the opportunity to improve patient care quality, outcomes, and coordination of care, though the small but growing literature provides only mixed support for improvements in these areas. For example, analysis of transfers of neonatal infants — the largest group of patients transferred from all rural hospitals — finds that only 11 such patients who were covered by commercial insurance were transferred from one hospital to another hospital within the same system. These results reflect the fact that California's geography and the generally long distances between hospitals within the same system present serious challenges to integrating and coordinating care for rural patients within a single system framework.

These findings can be used by policymakers scrutinizing the impact hospital system formation has had on the value of care patients receive throughout the state. In recent years, rising health care costs and health insurance premiums have increasingly threatened the financial well-being of all Californians — urban, suburban, and rural. Hospitals are consolidating into ever larger systems, offering the promise of higher quality and integrated care while accumulating market power that leads to higher prices for services, the primary driver of our health care cost conundrum.¹³

It is crucial for policymakers to address these underlying drivers. Research conducted for this issue brief indicates that hospital system membership is not the only route to financial viability for rural hospitals, nor are rural hospitals engaged in significant in-system transfers of patients to other hospitals. This suggests that regulation of hospital systems, if carefully constructed, could limit the negative aspects of system expansion on hospital prices without disrupting the financial stability or care coordination patterns of rural hospitals in California.

Appendix A. Distribution of Rural Hospitals and Organizational Control Status, by County, 2016

#	COUNTY	ALL HOSPITALS	SYSTEM	DISTRICT	INDEPENDENT
1	Butte	1	0	0	1
2	Colusa	1	0	0	1
3	Glenn	1	0	0	1
4	Lassen	1	0	0	1
5	Los Angeles	1	0	0	1
6	Mariposa	1	0	1	0
7	Mono	1	0	1	0
8	Monterey	1	0	0	1
9	San Benito	1	0	1	0
10	Shasta	1	0	1	0
11	Stanislaus	1	0	1	0
12	Trinity	1	0	1	0
13	Ventura	1	0	0	1
14	Amador	1	1	0	0
15	Calaveras	1	1	0	0
16	Del Norte	1	1	0	0
17	Kings	1	1	0	0
18	Merced	1	1	0	0
19	San Luis Obispo	1	1	0	0
20	Tehama	1	1	0	0
21	Tuolumne	1	1	0	0
22	El Dorado	2	0	0	2
23	Inyo	2	0	2	0
24	Modoc	2	0	2	0
25	Riverside	2	0	2	0
26	Santa Barbara	2	0	1	1
27	Sonoma	2	0	2	0
28	Fresno	2	1	1	0
29	Humboldt	2	1	1	0
30	Nevada	2	1	1	0
31	Siskiyou	2	1	0	1
32	Lake	2	2	0	0
33	Kern	3	0	2	1
34	Plumas	3	0	3	0
35	Mendocino	3	2	1	0
36	San Bernardino	7	3	2	2
Total		59	19	26	14

Note: There are 58 counties in California.

Source: OSHPD Financial Disclosure Reports, 2016.

Appendix B. List of Rural Hospitals, System and Nonsystem, 2016

System Hospitals					
#	HOSPITAL NAME	CONTROL TYPE*	ACUTE CARE BEDS	COUNTY	SYSTEM NAME
1	Hi-Desert Medical Center	I	59	San Bernardino	Tenet Healthcare
2	Twin Cities Community Hospital	I	122	San Luis Obispo	Tenet Healthcare
3	Frank R. Howard Memorial Hospital	NP	20	Mendocino	Adventist Health Systems
4	Sonora Regional Medical Center – Greenley	NP	84	Tuolumne	Adventist Health Systems
5	Adventist Medical Center – Hanford	NP	230	Kings	Adventist Health Systems
6	Adventist Medical Center – Reedley	NP	49	Fresno	Adventist Health Systems
7	St. Helena Hospital – Clearlake	NP	25	Lake	Adventist Health Systems
8	Ukiah Valley Medical Center	NP	68	Mendocino	Adventist Health Systems
9	Mercy Medical Center – Mt. Shasta	NP	33	Siskiyou	Dignity Health
10	St. Elizabeth Community Hospital	NP	66	Tehama	Dignity Health
11	Mark Twain Medical Center	NP	48	Calaveras	Dignity Health
12	Sierra Nevada Memorial Hospital	NP	104	Nevada	Dignity Health
13	Victor Valley Global Medical Center	I	101	San Bernardino	KPC Healthcare
14	Redwood Memorial Hospital	NP	35	Humboldt	St. Joseph Health System
15	St. Mary Medical Center – Apple Valley	NP	212	San Bernardino	St. Joseph Health System
16	Sutter Lakeside Hospital	NP	23	Lake	Sutter Health
17	Memorial Hospital – Los Banos	NP	44	Merced	Sutter Health
18	Sutter Amador Hospital	NP	52	Amador	Sutter Health
19	Sutter Coast Hospital	NP	32	Del Norte	Sutter Health

*Control types: investor (I) and nonprofit (NP).

Source: OSHPD Financial Disclosure Reports, 2016.

Nonsystem Hospitals

#	HOSPITAL NAME	CONTROL TYPE*	ACUTE CARE BEDS	COUNTY	#	HOSPITAL NAME	CONTROL TYPE*	ACUTE CARE BEDS	COUNTY
1	Orchard Hospital	NP	24	Butte	21	Tahoe Forest Hospital	D	25	Nevada
2	Colusa Regional Medical Center	NP	42	Colusa	22	Eastern Plumas Health Care	D	10	Plumas
3	Barton Memorial Hospital	NP	63	El Dorado	23	Plumas District Hospital	D	24	Plumas
4	Marshall Medical Center	NP	99	El Dorado	24	Seneca Healthcare District	D	10	Plumas
5	Coalinga Regional Medical Center	D	24	Fresno	25	Palo Verde Hospital	D	51	Riverside
6	Glenn Medical Center	NP	14	Glenn	26	San Geronio Memorial Hospital	D	71	Riverside
7	Jerold Phelps Community Hospital	D	9	Humboldt	27	Hazel Hawkins Memorial Hospital	D	62	San Benito
8	Northern Inyo Hospital	D	25	Inyo	28	Barstow Community Hospital	I	30	San Bernardino
9	Southern Inyo Hospital	D	4	Inyo	29	Bear Valley Community Hospital	D	9	San Bernardino
10	Kern Valley Hospital District	D	27	Kern	30	Colorado River Medical Center	NP	25	San Bernardino
11	Ridgecrest Regional Hospital	NP	25	Kern	31	Mountains Community Hospital	D	17	San Bernardino
12	Tehachapi Valley Hospital District	D	25	Kern	32	Lompoc Valley Medical Center	D	60	Santa Barbara
13	Banner Lassen Medical Center	NP	38	Lassen	33	Santa Ynez Valley Cottage Hospital	NP	11	Santa Barbara
14	Catalina Island Medical Center	NP	4	Los Angeles	34	Mayers Memorial Hospital	D	22	Shasta
15	John C. Freemont Healthcare District	D	11	Mariposa	35	Fairchild Medical Center	NP	28	Siskiyou
16	Mendocino Coast District Hospital	D	20	Mendocino	36	Healdsburg District Hospital	D	25	Sonoma
17	Modoc Medical Center	D	16	Modoc	37	Sonoma West Medical Center	D	37	Sonoma
18	Surprise Valley Community Hospital	D	4	Modoc	38	Oak Valley District Hospital	D	35	Stanislaus
19	Mammoth Hospital	D	17	Mono	39	Trinity Hospital	D	25	Trinity
20	George L. Mee Memorial Hospital	NP	76	Monterey	40	Ojai Valley Community Hospital	NP	25	Ventura

*Control types: district (D) investor (I), and nonprofit (NP).

Source: OSHPD Financial Disclosure Reports, 2016.

Appendix C. Rural Hospital OSHPD Intercompany Transfer Disclosures, 2011 to 2015

FACILITY	SYSTEM	COUNTY	YEAR	STAFFED BEDS	NATURAL BIRTHS	EXPENSES (FROM) RELATED ORGS	CURRENT ASSETS (IR)	CURRENT LIABILITIES (IP)	INVESTMENTS AND OTHER ASSETS (IR)	LONG-TERM DEBT (IP)	CHANGE IN EQUITY (IT)			CASH FLOW OPERATING ACCOUNTS CHANGE							
											UNRESTRICTED FUND	SPECIFIC-PURPOSE FUND	ENDOWMENT FUND	IR	IP						
Sutter Amador Hospital	Sutter Health	Amador	2011	34	233	\$3,832,573	\$242,972								\$-242,972	\$-690,070					
			2012	25	248	6,080,754		\$730,716								242,972	730,716				
			2013	25	228	4,829,668			90,616				\$-1,797,634					-640,100			
			2014	25	210	737,222				285,569				-2,436,461				194,953			
			2015	30	205	7,762,805					11,493				-10,708,801				-274,076		
Mark Twain St. Joseph	Dignity Health	Calaveras	2011	18	0	3,324,302			94,789				110,516				-21,676				
			2012	17	0	6,221,148				317,001				-333,098	\$-177,877			222,212			
			2013	16	0	6,635,544	76,961									13,750		-76,961	-317,001		
			2014	16	0	8,383,359	7,375											69,586			
			2015	11	0	9,704,634	71,801								26,872	806,877	-\$83,769		-64,426		
Sutter Coast Hospital	Sutter Health	Del Norte	2011	59	262	3,789,810	45,828	443,002					6,870,492				-45,828	-1,054,958			
			2012	49	240	4,211,794	25,692	1,179,146						-3,749,288				20,136	736,144		
			2013	49	229	2,194,357	23,199	322,712						4,405,489				2,493	-856,434		
			2014	20	222	2,810,124	156,303	1,038,540							-5,181,393				-133,104	715,828	
			2015	12	207	5,411,356	238,638	2,285,490								-11,947,650				-82,335	1,246,950
Adventist Medical Center	Adventist Health Systems	Fresno	2013	13	819	2,991,218			6,548,374		8,653,910							2,706,569			
			2014	12	978	3,341,598				9,312,098	12,778	8,468,922			-1,127,019				-5,760,351		
			2015	15	941	2,426,245				19,584,332	7,778	8,468,922			7,716,970				10,272,234		
Redwood Memorial Hospital	St. Joseph Health System	Humboldt	2011	25	276	1,273,224	285,653											208,587			
			2012	25	271	1,545,300													285,653	5,674	
			2013	25	312	1,674,096	371,189													-371,189	-5,674
			2014	14	222	2,329,956	480,997														-109,808
			2015	17	281	2,505,192							193,233								480,997

FACILITY	SYSTEM	COUNTY	YEAR	STAFFED BEDS	NATURAL BIRTHS	EXPENSES (FROM) RELATED ORGS	CURRENT ASSETS (IR)	CURRENT LIABILITIES (IP)	INVESTMENTS AND OTHER ASSETS (IR)	LONG-TERM DEBT (IP)	CHANGE IN EQUITY (IT)			CASH FLOW OPERATING ACCOUNTS CHANGE					
											UNRESTRICTED FUND	SPECIFIC-PURPOSE FUND	ENDOWMENT FUND	IR	IP				
Adventist Medical Center	Adventist Health Systems	Kings	2011	133	761	\$6,567,093	\$3,106,933	\$301,591							\$-1,702,023	\$-2,333,221			
			2012	121	629	6,827,524	4,341,079	1,932,573								-1,234,146	1,630,982		
			2013	104	560	8,217,052	7,309,998	2,109,517								-2,968,919	176,944		
			2014	107	300	20,604,525	8,984,239	705,689					\$-5,472,785				-1,674,241	-1,403,828	
			2015	156	1,374	22,486,663	22,453,202	7,721,241	\$42,312,942				115,800,000				-13,468,963	7,015,552	
St. Helena Hospital – Clearlake	Adventist Health Systems	Lake	2011	25	149	4,448,688			8,492,588	\$8,410,174									
			2012	25	115	4,762,878				2,579,463	8,410,174							-8,410,174	
			2013	16	115	4,559,461				579,917	11,527,000								
			2014	25	0	8,337,286				509,468	11,527,000		-2,626,812						
			2015	18	128	8,337,286				1,081,333	10,746,000		-319,214						
Sutter Lakeside Hospital	Sutter Health	Lake	2011	37	200	5,521,994	144,503	1,197,591					-5,798,007			-116,079	-1,466,447		
			2012	25	219	5,757,358	15,778	2,237,171						-3,204,678			128,725	1,039,580	
			2013	25	232	5,813,580				1,702,053				-1,811,754			15,778	-535,118	
			2014	19	186	5,527,768				5,335,518								3,633,465	
			2015	20	191	6,450,435	16,736	22,886							-3,308,651			-16,736	-5,312,632
Frank R. Howard Memorial Hospital	Adventist Health Systems	Mendocino	2011	16	0	0									4,431,872				
			2012	16	0	2,655,851													
			2013	16	0	3,076,690						9,234,545							
			2014	17	0	4,114,157						181,004							
			2015	17	0	3,914,774	102,339	81,881	181,004					437,595	\$363,406			-102,339	81,881
Ukiah Valley Medical Center	Adventist Health Systems	Mendocino	2011	58	605	4,952,218				989,489									
			2012	53	666	4,933,874	1,217,652											-1,217,652	
			2013	37	590	8,461,562				1,129,048	23,096,400	621,790	2,377,051				1,217,652	1,129,048	
			2014	37	598	9,041,243				280,451	19,082,936	621,790							-848,597
			2015	40	622	9,464,777	1,214,538	457,605	9,824,629		621,790								-1,214,538

FACILITY	SYSTEM	COUNTY	YEAR	STAFFED BEDS	NATURAL BIRTHS	EXPENSES (FROM) RELATED ORGS	CURRENT ASSETS (IR)	CURRENT LIABILITIES (IP)	INVESTMENTS AND OTHER ASSETS (IR)	LONG-TERM DEBT (IP)	CHANGE IN EQUITY (IT)			CASH FLOW OPERATING ACCOUNTS CHANGE						
											UNRESTRICTED FUND	SPECIFIC-PURPOSE FUND	ENDOWMENT FUND	IR	IP					
Memorial Hospital – Los Banos	Sutter Health	Merced	2011	17	505	\$6,940,622		\$959,115								\$152,880				
			2012	13	470	7,353,208		775,123									-183,992			
			2013	13	476	2,166,236		763,737									-11,386			
			2014	11	421	8,830,271												-763,737		
			2015	11	398	5,636,553		29,316										29,316		
Sierra Nevada Memorial Hospital	Dignity Health	Nevada	2011	68	362	5,839,634		327,573								\$90,003	327,573			
			2012	65	365	5,810,769		163,702										-163,871		
			2013	66	374	6,271,343		186,597										22,895		
			2014	49	383	12,919,419		581,808										395,211		
			2015	54	317	25,442,066		1,110,430											528,622	
St. Mary Medical Center – Apple Valley	St. Joseph Health System	San Bernardino	2011	196	2,077	9,588,572											259,395			
			2012	204	2,132	11,161,792														
			2013	210	1,898	12,384,068												-38,015,424		
			2014	210	1,831	18,768,891													-7,905,320	
			2015	187	1,735	18,655,208						\$6,218,038							-33,125,992	
Twin Cities Community Hospital	Tenet Healthcare	San Luis Obispo	2011	64	578	3,205,374											23,192,557			
			2012	53	566	3,198,904												32,241,113		
			2013	51	530	3,173,026												34,480,192		
			2014	47	488	4,385,906													43,825,353	
			2015	47	488	4,368,826													51,321,223	
Mercy Medical Center – Mt. Shasta	Dignity Health	Siskiyou	2011	11	101	4,333,527												133,906		
			2012	8	124	4,472,308		\$265,222											-12,525	
			2013	8	115	5,035,239		59,660											-12,525	
			2014	8	67	6,410,608														205,562
			2015	8	101	10,058,711														156,166
																		59,660		
																			156,166	
																			424,914	
																			-335,000	

FACILITY	SYSTEM	COUNTY	YEAR	STAFFED BEDS	NATURAL BIRTHS	EXPENSES (FROM) RELATED ORGS	CURRENT ASSETS (IR)	CURRENT LIABILITIES (IP)	INVESTMENTS AND OTHER ASSETS (IR)	LONG-TERM DEBT (IP)	CHANGE IN EQUITY (IT)			CASH FLOW OPERATING ACCOUNTS CHANGE			
											UNRESTRICTED FUND	SPECIFIC-PURPOSE FUND	ENDOWMENT FUND	IR	IP		
St. Elizabeth Community Hospital	Dignity Health	Tehama	2011	27	554	\$7,321,963		\$342,551				\$-12,525				\$-611,978	
			2012	27	493	7,835,290		230,517					-926,150				-112,034
			2013	24	479	7,567,012		326,519					-1,873,237				96,002
			2014	25	467	9,449,139	\$538,747						-2,045,186			\$-538,747	-326,519
			2015	27	421	14,838,202	1,293,021						-2,802,934			-754,274	
Sonora Regional Medical Center – Greenley	Adventist Health Systems	Tuolumne	2011	147	327	6,171,660	26,125		\$796,708						-4,648	-925,988	
			2012	119	323	7,504,806	38,288	1,204,624	777,708						-12,163	1,204,624	
			2013	119	340	10,219,337	10,133	812,177	555,908						28,155	-392,447	
			2014	119	329	14,128,921	9,132	109,745	518,108				-2,998,639		1,001	-702,432	
			2015	134	374	14,254,743	8,823	353,478	493,001				-1,822,340		309	243,733	

IP: Intercompany payables

IR: Intercompany receivables

IT: Intercompany transfer

Source: OSHPD Financial Disclosure Reports, selected years.

Endnotes

1. California Senate Bill No 1047, California State Assembly, 2017–2018 Regular Sess (February 8, 2018).
2. Brent Fulton, “Health Care Market Concentration Trends in The United States: Evidence and Policy Responses.” *Health Affairs* 36, no. 9 (2017): 1530–38, doi:10.1377/hlthaff.2017.0556.
3. Glenn Melnick and Katya Fonkych, “Hospital Prices Increase in California, Especially Among Hospitals in the Largest Multi-Hospital Systems,” *Inquiry* 9, no. 53 (June 2016), doi:10.1177/0046958016651555; Richard Scheffler, Consolidation in California’s Health Care Market 2010–2016: Impact on Prices and ACA Premiums, University of California, Berkeley, March 26, 2018, petris.org (PDF).
4. Michael Topchik, *Rural Relevance 2017: Assessing the State of Rural Healthcare in America*, Chartis Group, Chartis Center for Rural Health, 2017, www.chartisforum.com; Eva Durazo et al., *The Health Status and Unique Health Challenges of Rural Older Adults in California*, UCLA Center for Health Policy, June 2011, healthpolicy.ucla.edu (PDF).
5. *On the Frontier: Medi-Cal Brings Managed Care to California’s Rural Counties*, California Health Care Foundation, March 10, 2015, www.chcf.org.
6. Ayla Ellison, “Rural Hospital in California Files for Bankruptcy,” *Becker’s Hospital Review*, January 9, 2018, www.beckershospitalreview.com; Keeley Webster, “Multiple Factors Drive Upswing of Bankruptcies, Closures Among Rural Hospitals,” *The Bond Buyer*, February 8, 2018, www.bondbuyer.com; “Hospital District in California Files for Chapter 9 Bankruptcy,” *The Bond Buyer*, www.bondbuyer.com.
7. Marissa Noles et al., “Rural Hospital Mergers & Acquisitions: Which hospitals Are Being Acquired and How Are They Performing Afterwards?” *Journal of Healthcare Management* 60, no. 6 (November–December 2015), 395–407, journals.lww.com.
8. For more information see “Critical Access Hospitals Center,” www.cms.gov.
9. Noles et al., “Rural Hospital Mergers.”
10. Similar issues have been identified for CAHs. See Merle Ederhof and Lena Chen, “Critical Access Hospitals and Cost Shifting,” *JAMA Intern Medicine*, 174, no. 1 (January 2014): 143–44, doi:10.1001/jamainternmed.2013.11901.
11. David Cutler and Fiona Scott Morton, “Hospitals, Market Share, and Consolidation,” *JAMA* 310, no. 18 (November 2013): 1964–70, doi:10.1001/jama.2013.281675; Claudia Williams, William Vogt, and Robert Town, *How Has Hospital Consolidation Affected the Price and Quality of Hospital Care?*, Robert Wood Johnson Foundation, February 1, 2006, www.rwjf.org.
12. OSHPD public-use PDD data were used to track patient transfers in DRG 789. The method is as follows: First, the zip codes of the patients transferred from a rural hospital in DRG 789 were coded. Next, admissions into another acute care hospital of transferred patients from those matching rural zip codes in DRG 789 were coded. If a receiving system hospital had an admission from the identified rural system hospital zip code, the patient was coded as a within or same-system transfer. This could lead to an overestimate of within-system transfers, but if so, it is likely to be negligible.
13. Thomas Tsai and Ashish Jha, “Hospital Consolidation, Competition, and Quality. Is Bigger Necessarily Better?” *JAMA* 312, no. 1 (2014): 29–30, doi:10.1001/jama.2014.4692; Tim Xu, Albert Wu, and Martin Makary, “The Potential Hazards of Hospital Consolidation: Implications for Quality, Access, and Price,” *JAMA* 314, no. 13 (2015): 1337–38, doi:10.1001/jama.2015.7492.