

*Flex Monitoring Team Data Summary Report No. 26:*

# **CAH Financial Indicators Report: Summary of Indicator Medians by State**

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**The Flex Monitoring Team** is a consortium of the Rural Health Research Centers located at the Universities of Minnesota, North Carolina at Chapel Hill, and Southern Maine. Under contract with the federal Office of Rural Health Policy (PHS Grant No. U27RH01080), the Flex Monitoring Team is cooperatively conducting a performance monitoring project for the Medicare Rural Hospital Flexibility Program (Flex Program). The monitoring project is assessing the impact of the Flex Program on rural hospitals and communities and the role of states in achieving overall program objectives, including improving access to and the quality of health care services; improving the financial performance of Critical Access Hospitals; and engaging rural communities in health care system development.

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## **The Medicare Rural Hospital Flexibility Program**

The Medicare Rural Hospital Flexibility Program (Flex Program), created by Congress in 1997, allows small hospitals to be licensed as Critical Access Hospitals (CAHs) and offers grants to States to help implement initiatives to strengthen the rural health care infrastructure. To participate in the Flex Program, States are required to develop a rural health care plan that provides for the creation of one or more rural health networks, promotes regionalization of rural health services in the State, and improves the quality of and access to hospital and other health services for rural residents of the State. Consistent with their rural health care plans, states may designate eligible rural hospitals as CAHs.

CAHs must be located in a rural area or an area treated as rural; be more than 35 miles (or 15 miles in areas with mountainous terrain or only secondary roads available) from another hospital, or be certified before January 1, 2006 by the State as being a necessary provider of health care services. CAHs are required to make available 24-hour emergency care services that a State determines are necessary. CAHs may have a maximum of 25 acute care and swing beds, and must maintain an annual average length of stay of 96 hours or less for their acute care patients. CAHs are reimbursed by Medicare on a cost basis (i.e., for the reasonable costs of providing inpatient, outpatient, and swing bed services).

The legislative authority for the Flex Program and cost-based reimbursement for CAHs are described in the Social Security Act, Title XVIII, Sections 1814 and 1820, available at [http://www.ssa.gov/OP\\_Home/ssact/title18/1800.htm](http://www.ssa.gov/OP_Home/ssact/title18/1800.htm).

## Introduction

All hospitals, regardless of size and organizational structure, benefit from comparative data on financial condition and performance. The unique reimbursement and organizational structure of critical access hospitals (CAHs) make it important to have financial indicators that capture their own circumstances for performance assessment. CAHs differ from urban and other rural hospitals that are paid under the Medicare Prospective Payment System (PPS) in important aspects that affect the most appropriate way to measure financial condition. Unlike PPS hospitals, CAHs receive cost-based reimbursement for inpatient and outpatient care, and the incentives, financial management, and utilization practices under these two payment methods differ substantially. There are also organizational differences between CAHs and other hospitals that may affect financial performance; for instance, CAHs have relaxed staffing rules under Medicare, and they have limits on bed-size and average length of stay (and low volume hospitals have been found to face substantially more annual variation in demand for services, making financial planning difficult).

This Briefing Paper presents state and national median values of the twenty-two financial indicators included in the *CAH Financial Indicators Report*, a report that is distributed to each CAH administrator annually. As part of ongoing work of the Flex Monitoring Team, these indicators were specifically designed to capture the financial performance of CAHs. In order to identify the indicators that were most relevant to the financial performance of CAHs, a Technical Advisory Group (TAG) of four individuals knowledgeable in CAH financial and operational issues, data, and reporting practices was selected to provide advice to a research team from the University of North Carolina at Chapel Hill. The TAG evaluated frequently used indicators of hospital financial performance for their applicability to CAHs.<sup>1</sup> Their evaluation relied on three criteria: feasibility (whether the indicator can be accurately calculated from Medicare cost report data<sup>2</sup>), importance (whether the indicator is an important measure of the financial management of CAHs), and usefulness (whether the indicator is useful to CAH administrators). The TAG retained 13 of the most frequently used indicators from the review. In addition, 7 other financial ratios were added that are not commonly used in the financial assessment of larger hospitals, but that group members believed capture important attributes of CAH financial management. Two more have been added since.

The resulting 22 indicators fall under six domains: profitability, liquidity, capital structure, revenue, cost, and utilization. In the pages that follow, a brief description of the domains and the indicators within them is provided, along with a table that allows comparison across states. The Appendix to this report includes the median values for each indicator by state, enabling the values for all indicators for one state to be viewed on a single page. More detailed information about the definition and interpretation of the indicators can be found in the document “Briefing Paper No. 7. Financial Indicators for Critical Access Hospitals May 2005” which can be downloaded from the Flex Monitoring Team website:

<http://www.flexmonitoring.org/publications/bp7/>

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<sup>1</sup> The list of potential indicators resulted from a review of financial ratios in articles, peer-reviewed journals, and other industry and scientific publications.

<sup>2</sup> Medicare cost reports were selected as the data source for calculating indicator values because they are the only national data that use standard definitions, have sufficient detail, and will eventually include data for all CAHs.

The following table includes, by state, the total number of Critical Access Hospitals with a Medicare Cost Report for at least 360 days in period, the minimum required to be included in the calculation of medians. The number of CAHs for a particular indicator may be less than the number in the table if there were unusable data for one or more CAHs in the state. Furthermore, this number may vary from other counts of CAHs by states due to differences in who is included in this count; for example, only CAHs with a cost report period of at least 360 days are included, which means state counts not excluding short fiscal years would yield larger numbers of CAHs in the state.

State	2016 Number of CAHs	State	2016 Number of CAHs
AK	13	NC	21
AL	4	ND	36
AR	29	NE	64
AZ	14	NH	12
CA	33	NM	9
CO	29	NV	11
FL	12	NY	18
GA	29	OH	33
HI	9	OK	34
IA	82	OR	24
ID	27	PA	13
IL	51	SC	4
IN	35	SD	38
KS	84	TN	13
KY	25	TX	80
LA	27	UT	11
MA	3	VA	6
ME	16	VT	8
MI	36	WA	39
MN	77	WI	57
MO	36	WV	20
MS	31	WY	16
MT	48		

\*Median values calculated ONLY for states with post-conversion Medicare Cost Report data for at least 2 critical access hospitals in 2016









## Revenue Indicators

Most organizations receive revenues from many sources and relative profitability often varies among sources. A substantial proportion of revenue from commercial and private payers reduces reliance on the fixed margins of Medicare and Medicaid. *Revenue indicators* measure the amount and mix of different sources of revenue.

**Outpatient Revenues to Total Revenues** measures the percentage of total revenues that are for outpatient revenues (including, for example, Rural Health Clinics, free-standing clinics, and home health clinics).

Outpatient revenues to total revenues formula: 
$$\frac{\text{Total outpatient revenue}}{\text{Total patient revenue}}$$

**Patient Deductions** measures the allowances and discounts per dollar of total patient revenues.

Patient deductions formula: 
$$\frac{\text{Contractual allowances and discounts}}{\text{Gross total patient revenue}}$$

**Medicare Inpatient Payer Mix** measures the percentage of total inpatient days that are provided to Medicare patients.

Medicare inpatient payer mix formula:

$$\frac{\text{Medicare inpatient days}}{\text{Total inpatient days} - \text{Nursery bed days} - \text{NF Swing bed days}}$$

**Hospital Medicare Outpatient Payer Mix** measures the percentage of total outpatient charges that are for Medicare patients.

Medicare outpatient payer mix formula: 
$$\frac{\text{Outpatient Medicare charges}}{\text{Total outpatient charges}}$$

**Hospital Medicare Outpatient Cost to Charge** measures outpatient Medicare costs per dollar of outpatient Medicare charges.

Medicare outpatient cost to charge formula: 
$$\frac{\text{Outpatient Medicare costs}}{\text{Outpatient Medicare charges}}$$

**Medicare Acute Inpatient Cost per Day** measures the average daily cost of a Medicare acute inpatient.

Medicare revenue per day formula: 
$$\frac{\text{Medicare acute inpatient cost}}{\text{Medicare inpatient days (excl HMO)}}$$

State	Outpatient Revenues to Total Revenues	Patient Deductions	Medicare Inpatient Payer Mix	Medicare Outpatient Payer Mix	Medicare Outpatient Cost to Charge	Medicare Revenue per Day
	%	%	%	%	%	\$
US	77.74	43.46	72.70	37.10	0.45	2592
AK	60.65	16.75	56.42	24.75	0.82	4769
AL	73.12	63.52	87.31	38.71	0.34	1418
AR	74.35	52.71	73.80	37.74	0.42	1846
AZ	83.86	59.63	51.60	24.02	0.37	2592
CA	69.84	53.91	64.22	36.83	0.32	3562
CO	80.16	36.88	68.95	37.86	0.47	3791
FL	77.65	63.05	67.94	28.33	0.26	1272
GA	71.09	57.21	60.87	24.84	0.33	1606
HI	50.45	29.48	43.86	13.74	0.63	3653
IA	82.13	39.00	76.08	40.75	0.48	2682
ID	75.36	34.72	64.92	33.70	0.55	3282
IL	84.17	54.72	73.60	38.33	0.33	2519
IN	84.24	61.84	65.66	32.37	0.28	2598
KS	72.11	35.35	89.62	47.97	0.55	2230
KY	79.65	62.98	69.83	30.23	0.28	1613
LA	75.82	50.47	70.24	31.53	0.42	2326
MA	84.59	49.14	77.92	36.33	0.40	2699
ME	78.37	41.70	69.48	38.51	0.44	2394
MI	85.56	46.48	61.52	34.20	0.40	2723
MN	73.91	36.17	70.47	39.85	0.50	3451
MO	82.33	54.96	74.57	39.86	0.36	2188
MS	66.71	47.18	90.82	40.99	0.40	1653
MT	69.54	26.60	78.45	37.18	0.61	2699
NC	80.62	63.75	61.38	38.13	0.30	2104
ND	68.28	22.04	89.21	44.75	0.65	2251
NE	77.35	22.94	82.62	49.02	0.57	3382
NH	78.71	48.09	79.15	39.54	0.42	3008
NM	74.96	55.76	53.25	31.53	0.38	3136
NV	78.12	39.53	64.49	34.27	0.38	3044
NY	76.21	51.93	64.37	24.97	0.42	2336
OH	81.78	60.23	59.75	28.93	0.32	2756
OK	74.60	49.42	84.79	39.36	0.43	2156
OR	79.13	39.25	57.57	39.15	0.48	3840
PA	76.73	54.22	67.97	29.25	0.33	1910
SC	83.15	42.98	57.42	23.19	0.44	2244
SD	72.80	34.50	89.14	47.52	0.47	2328
TN	85.66	67.12	64.16	24.07	0.25	2001
TX	81.75	49.37	76.21	32.38	0.46	2642
UT	76.88	32.63	61.71	30.48	0.50	3578
VA	74.71	62.58	70.27	36.85	0.33	2287
VT	71.39	49.45	71.72	36.77	0.37	2531
WA	75.26	44.04	76.68	36.90	0.48	3871
WI	80.23	43.83	62.01	33.16	0.44	3177
WV	82.67	47.41	68.45	30.91	0.42	1953
WY	67.47	33.73	70.89	40.53	0.57	3427

## Cost Indicators

Most organizations incur labor, supply, and capital costs. Cost management reduces the likelihood of financial problems due to low productivity, poor inventory management, and excessive asset acquisition costs. *Cost indicators* measure the amount and mix of different types of costs.

**Salaries to Net Patient Revenue** measures the percentage of patient revenue that are labor costs.

Salaries to patient revenue formula:

$$\frac{\text{Salary Expense}}{\text{Net Patient Revenue}}$$

**Average Age of Plant** measures the average age in years of the fixed assets of an organization.

Average age of plant formula:

$$\frac{\text{Accumulated depreciation}}{\text{Depreciation expense} * (365 / \text{Days in period})}$$

**FTEs per Adjusted Occupied Bed** measures the number of full-time employees per each occupied bed.

FTEs per adjusted occupied bed formula:

$$\frac{\text{Number of FTEs}}{\text{Adjusted occupied beds}^1}$$

<sup>1</sup>. (Inpatient days – NF Swing days – Nursery days) \* (Total patient revenue / (Total inpatient revenue – Inpatient NF revenue – Other LTC Revenue)) / Days in period

**Average Salary per FTE** measures the price and mix of labor.

$$\frac{\text{Salary Expense}}{\text{Number of FTEs}}$$

State	Salaries to Net Patient Revenue	Average Age of Plant	FTEs per Adjusted Occupied Bed	Average Salary per FTE
	%	Years	FTEs	Dollars
US	44.90	10.48	5.61	56,197
AK	45.95	18.11	15.09	74,941
AL	40.26	17.89	3.04	45,893
AR	46.18	11.11	4.22	46,406
AZ	42.72	10.30	5.13	61,269
CA	42.32	11.71	9.24	71,258
CO	44.90	9.78	7.65	62,867
FL	42.33	9.45	3.43	56,660
GA	42.96	10.91	5.61	47,239
HI	50.62	10.38	8.32	64,398
IA	42.50	10.28	5.37	54,573
ID	47.61	9.44	9.79	58,502
IL	39.75	9.93	4.51	54,079
IN	38.45	9.85	4.80	58,946
KS	54.17	12.89	5.37	50,210
KY	41.58	12.32	4.25	51,452
LA	46.97	10.65	4.63	51,284
MA	47.73	10.33	3.34	92,065
ME	46.50	16.10	5.96	68,245
MI	41.87	11.35	5.80	60,809
MN	42.51	10.86	8.05	62,835
MO	44.63	10.99	4.38	56,720
MS	42.96	5.08	3.92	46,772
MT	51.35	12.23	8.22	52,480
NC	41.82	14.33	4.54	54,118
ND	47.01	11.14	5.66	52,756
NE	44.93	8.55	7.02	55,288
NH	44.00	11.73	5.26	70,109
NM	45.04	8.20	6.06	65,473
NV	45.29	10.43	5.74	64,214
NY	52.68	16.66	5.24	52,159
OH	35.27	13.66	4.99	54,934
OK	54.12	5.27	4.00	56,428
OR	45.03	9.82	7.19	79,016
PA	38.73	19.91	5.93	51,914
SC	53.95	19.81	5.45	55,806
SD	45.95	11.23	6.71	53,369
TN	42.90	12.55	3.12	53,316
TX	50.34	8.29	4.99	47,091
UT	36.98	15.32	6.40	61,020
VA	45.60	9.08	4.04	58,903
VT	46.57	12.54	5.79	75,129
WA	49.16	11.95	6.85	75,219
WI	40.01	9.71	5.95	66,616
WV	45.40	11.11	5.42	51,847
WY	55.45	10.04	11.09	63,123

## Utilization Indicators

Overhead costs are incurred on all assets, whether used or not. More patient activity generates higher revenues and reduces unit costs by spreading fixed costs over more patients. *Utilization indicators* measure the extent to which fixed assets (beds) are fully occupied.

**Average Daily Census Swing-SNF Beds** measures the average number of swing-SNF beds occupied per day.

Average daily census swing-SNF beds formula:

$$\frac{\text{Inpatient swing bed SNF days}}{\text{Days in period}}$$

**Average Daily Census Acute Beds** measures the average number of acute care beds occupied per day.

Average daily census acute beds formula:

$$\frac{\text{Inpatient acute care bed days}}{\text{Days in period}}$$

State	Swing-SNF Beds	Acute Beds
	Days	Days
US	1.53	2.70
AK	0.72	1.57
AL	4.93	1.52
AR	1.36	4.12
AZ	0.75	2.54
CA	0.83	4.19
CO	1.16	2.16
FL	0.57	4.41
GA	3.47	2.28
HI	1.19	0.05
IA	1.92	2.57
ID	0.99	2.64
IL	1.56	3.73
IN	0.89	5.46
KS	2.43	1.47
KY	2.43	4.62
LA	1.86	2.45
MA	5.14	7.28
ME	2.75	7.20
MI	0.44	3.59
MN	1.24	2.38
MO	2.99	3.68
MS	6.38	2.68
MT	1.18	1.07
NC	1.01	5.39
ND	1.24	1.09
NE	1.32	1.66
NH	2.80	6.57
NM	0.59	4.10
NV	0.50	3.04
NY	3.27	2.73
OH	1.29	5.51
OK	2.16	1.48
OR	1.06	5.30
PA	2.59	6.28
SC	1.91	1.64
SD	1.57	1.22
TN	2.07	2.19
TX	1.39	1.63
UT	1.10	2.26
VA	2.38	6.27
VT	1.76	12.16
WA	0.97	2.66
WI	0.88	4.38
WV	1.98	2.47
WY	1.01	2.92

## 2016 Median Indicator Values for New York and the United States

Indicator	NY	US
Total Margin	6.29	2.74
Cash Flow Margin	3.59	6.99
Return on Equity	11.27	5.32
Operating Margin	-2.71	0.93
Current Ratio	1.72	2.48
Days Cash on Hand	59.47	77.72
Days in Net Accounts Receivable	39.57	51.34
Days in Gross Accounts Receivable	31.51	49.12
Equity Financing	58.33	59.78
Debt Service Coverage	6.70	3.35
Long-Term Debt to Capitalization	26.93	27.20
Outpatient Revenues to Total Revenues	76.21	77.74
Patient Deductions	51.93	43.46
Medicare Inpatient Payer Mix	64.37	72.70
Medicare Outpatient Payer Mix	24.97	37.10
Medicare Outpatient Cost to Charge	0.42	0.45
Medicare Revenue per Day	2336	2592
Salaries to Net Patient Revenue	52.68	44.90
Average Age of Plant	16.66	10.48
FTEs per Adjusted Occupied Bed	5.24	5.61
Average Salary per FTE	52159	56197
Average Daily Census Swing-SNF Beds	3.27	1.53
Average Daily Census Acute Beds	2.73	2.70
Number of Included CAHs	18	1317

*Number of Included CAHs* is the Number of CAHs with a Medicare Cost Report for at least 360 days (used in analysis).

*N/A* denotes medians that could not be calculated since there were no valid values for this indicator for 2016. See complete report for discussion.