

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

April 2023



**Flex  
Monitoring  
Team**

University of Minnesota  
University of North Carolina at Chapel Hill  
University of Southern Maine

Table 45. South Dakota 2021 Indicator Median Values

Indicator	SD 10th Per- centile	SD Median	SD 90th Per- centile	HRSA Region 8 Median	US Median
<b>Profitability</b>					
Total Margin (%)	2.50	18.41	29.86	14.97	13.11
Cash Flow Margin (%)	5.12	21.44	33.21	17.47	15.38
Return on Equity (%)	7.06	23.37	43.95	23.30	20.74
Operating Margin (%)	4.58	17.28	28.89	12.31	10.9
<b>Liquidity</b>					
Current Ratio (Times)	1.18	4.00	10.77	2.94	2.26
Days Cash on Hand (Days)	0.03	145.22	441.62	190.77	164.81
Days in Net Accounts Receivable (Days)	36.80	45.72	70.55	51.19	48.91
Days in Gross Account Receivable (Days)	24.57	38.65	61.61	47.72	48.14
<b>Capital Structure</b>					
Equity Financing (%)	39.25	75.51	91.96	60.81	57.81
Debt Service Coverage (Times)	2.99	9.02	25.58	10.22	8.91
Long-term Debt to Capitalization (%)	0.00	19.90	51.69	20.29	22.43
<b>Inpatient</b>					
Medicare Inpatient Payer Mix (%)	65.16	81.21	91.54	75.80	62.59
Medicare Acute Inpatient Cost Per Day (\$)	2112	3029	4052	3444	3194
Average Daily Census Acute (Patients)	0.56	1.49	3.40	1.50	2.47
Average Daily Census Swing – SNF (Patients)	0.73	1.32	4.00	1.38	1.53
<b>Outpatient</b>					
Outpatient Revenue to Total Revenue (%)	63.30	74.11	84.69	75.90	80.98
Hospital Medicare Outpatient Payer Mix (%)	35.90	46.98	57.07	39.77	32.36
Hospital Medicare Outpatient Cost to Charge	29.79	38.10	49.59	49.54	42.89
<b>Labor</b>					
FTEs per Adjusted Occupied Bed (#)	4.36	6.34	10.14	7.10	5.31
Average Salary per FTE (\$)	52817	69936	79857	69455	67766
Salaries to Net Patient Revenue (%)	35.39	44.32	53.44	46.61	44.37
<b>Growth</b>					
1-Year Change in Operating Revenue (%)	4.03	13.50	45.49	15.98	14.89
3-Year Change in Operating Revenue (%)	14.81	33.01	68.47	34.80	29.79
1-Year Change in Operating Expenses (%)	1.23	7.76	16.83	8.27	7.61
3-Year Change in Operating Expenses (%)	9.50	19.79	42.38	19.86	16.02
<b>Other</b>					
Average Age of Plant (Years)	4.59	10.36	20.52	12.00	12.54
Patient Deductions (%)	24.33	38.32	50.59	33.24	46.01
Medicaid Payer Mix (%)	2.32	4.54	16.49	10.78	13.18
Uncompensated Care (%)	1.09	2.55	8.73	2.66	3.09
Number of Included CAHs (#)	38	38	38	181	1338

Note:

<sup>1</sup> HRSA Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

<sup>2</sup> Number of Included CAHs is the Number of CAHs with a Medicare Cost Report for at least 360 days.

<sup>3</sup> For information about the ordinality of an indicator, please see the Appendix.

## Appendix: Indicator Definitions

### Profitability Indicators

Profitability is the net result of a large number of strategic and operational decisions, and it reflects the combined effects of liquidity, asset management, and debt on operating results. Profitability indicators measure the ability to generate the financial return required to replace assets, meet increases in service demands, and compensate investors (in the case of a for-profit organization).

#### Total margin

##### Definition

$$\frac{\text{Net Income}}{\text{Total Revenue}}$$

##### Medicare Cost Report

$$\frac{\text{Worksheet G - 3, Line 29}}{\text{Worksheet G - 3, Line 3 + 25}}$$

##### Interpretation

Total Margin measures the control of expenses relative to revenues. A positive value indicates total expenses are less than total revenues (a profit). Very high positive values may indicate higher patient volumes, which drive down the cost per unit of service. A negative value indicates total expenses are greater than total revenues (a loss). Very high negative values may indicate financial difficulty.

##### Data Quality Issues

None.

##### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: -100%. Maximum value: +100%.

##### Benchmark

> 3%.

##### Ordinality

Higher is better.

## Cash flow margin

### Definition

$$\frac{\text{Net income} - \text{Contributions, investments, and appropriations} + \text{Depreciation expense} + \text{Interest expense}}{\text{Net patient revenue} + \text{Other income} - \text{Contributions, investments, and appropriations}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G} - 3, \text{ Line 29} - (6 + 7 + 23) + \text{Worksheet A, col.3, line 1} + 2 + 113}{\text{Worksheet G} - 3, \text{ Line 3} + 25 - (6 + 7 + 23)}$$

### Interpretation

Cash Flow Margin measures the cash inflow per dollar of revenue from providing patient care services. A positive value indicates cash outflows are less than cash inflows. A negative value indicates cash outflows are greater than cash inflows.

### Data Quality Issues

None.

### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: -100%. Maximum value: +100%.

### Benchmark

> 5%.

### Ordinality

Higher is better.

## **Return on equity**

### Definition

$$\frac{\text{Net income}}{\text{Net assets}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G – 3, Line 29}}{\text{Worksheet G, col.1 – 4, line 59}}$$

### Interpretation

Return on Equity measures the net income generated by equity investment (net assets). In a not-for-profit entity, the equity represents the sum of federal, state, and local grants, contributions, and the accumulated earnings of the hospital. A positive value indicates net income was generated by equity investment. Very high positive values may indicate an opportunity for debt financing. A negative value indicates a net loss was generated by equity investment. Very high negative values may indicate financial difficulty.

### Data Quality Issues

The real equity of a hospital may not be reflected in its net assets if it is part of a larger system.

### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: -100%. Maximum value: +100%.

### Benchmark

> 4.5%.

### Ordinality

Higher is better.

## Operating margin

### Definition

$$\frac{\text{Net patient revenue} + \text{Other revenue} - \text{Total operating expenses}}{\text{Net patient revenue} + \text{Other revenue}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G} - 3, (\text{Line 3} + \text{Lines 8 to 22} + \text{Line 24} - \text{Line 4})}{\text{Worksheet G} - 3, (\text{Line 3} + (\text{Line 8 to 22}) + \text{Line 24})}$$

### Interpretation

Operating Margin measures the control of operating expenses relative to operating revenue (net patient and other revenue). A positive value indicates operating expenses are less than operating revenue (an operating profit). Very high positive values may indicate higher patient volumes, which drive down the cost per unit of service. A negative value indicates operating expenses are greater than operating revenues (an operating loss). Very high negative values may indicate financial difficulty.

### Data Quality Issues

Operating margin can be calculated in different ways. Given the data constraints of the Medicare Cost Report, the definition used in this report is the best match between operating revenues and operating expenses. For a full explanation, see [Flex Monitoring Team Briefing Paper 17: Differences in Measurement of Operating Margin \(March 2008\)](#).

### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: -100%. Maximum value: +100%.

### Benchmark

> 2%.

### Ordinality

Higher is better.

## Liquidity Indicators

A liquid asset is one that trades in an active market and hence can be quickly converted to cash at the going market price. An analysis of liquidity asks the question “will the organization be able to pay off its debts as they come due over the next year or so?” Liquidity indicators measure the ability to meet cash obligations in a timely manner.

### Current ratio

#### Definition

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

#### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1 – 4, line 11}}{\text{Worksheet G, col.1 – 4, line 45}}$$

#### Interpretation

Current Ratio measures the number of times short-term obligations can be paid using short-term assets. A value greater than 1.0 indicates current assets are greater than current liabilities. Very high values may indicate underinvestment in longer-term assets that usually yield higher returns. A value less than 1.0 indicates current assets are less than current liabilities. Very low values may indicate difficulty in payment of short-term obligations.

#### Data Quality Issues

There may be variations in the classification of investments as either current or long-term.

#### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0. Maximum value: 1000.

#### Benchmark

$> 2.3$ .

#### Ordinality

Higher is better.

## **Days cash on hand**

### Definition

$$\frac{\text{Cash} + \text{Temporary investments} + \text{Investments}}{(\text{Total expenses} - \text{Depreciation}) / \text{Days in period}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1} - 4, \text{ line } 1 + 2 + 31}{(\text{Worksheet A, col.3, line } 200 - 1 - 2) / \text{Days in period}}$$

### Interpretation

Days Cash on Hand measures the number of days an organization could operate if no cash was collected or received. A low value indicates only a few days of cash on hand. Very low values may indicate financial difficulty. A high value indicates many days of cash on hand. Very high values may indicate underinvestment in longer-term assets that usually yield higher returns. Days Cash on Hand is calculated at fiscal year end, which does not reflect uneven cash flows throughout the year.

### Data Quality Issues

Unrestricted investments may erroneously include restricted investments, leading to an overestimate of Days Cash on Hand. Days cash on hand may be inaccurate if a hospital is part of a larger system and cash is swept by the system.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0. Maximum value: 1000.

### Benchmark

$>$  60 days.

### Ordinality

Higher is better.



## Days in net accounts receivable

### Definition

$$\frac{\text{Net patient accounts receivable}}{(\text{Net patient revenue} / \text{Days in period})}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1, line 4} - | \text{Worksheet G, col.1, line 6} |}{\text{Worksheet G} - 3, \text{ line 3} / \text{Days in period}}$$

### Interpretation

Days Net Revenue in Accounts Receivable measures the number of days that it takes an organization, on average, to collect its receivables. A high value indicates many days to collect receivables. Very high values may indicate a need to review collection policies and procedures. A low value indicates only a few days to collect receivables and may indicate a more efficient system for processing accounts receivable, higher Medicare and Medicaid payer mix, offering of long-term care services, or some combination.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0. Maximum value: 365.

### Benchmark

$<$  53 days.

### Ordinality

Lower is better.

## Days in gross accounts receivable

### Definition

$$\frac{\text{Gross patient accounts receivable}}{(\text{Gross patient revenues} / \text{Days in Period})}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1, line 4}}{\text{Worksheet G - 3, line 1} / \text{Days in period}}$$

### Interpretation

Days Gross Revenue in Accounts Receivable compared to Days Net Revenue in Accounts Receivable measures revenue cycle performance. Days gross and net revenues in accounts receivable that are close in value indicate good revenue cycle performance. Days gross revenue in accounts receivable greater than days net revenue in accounts receivable may indicate that allowances for doubtful accounts (implicit price concessions) require analysis and possible adjustment.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0. Maximum value: 365.

### Benchmark

None.

### Ordinality

Lower is better.

## Capital Structure Indicators

The extent to which an organization uses debt financing, or financial leverage, has three important implications. First, debt allows not-for-profit organizations to provide more services than it could if it were financed only by contributed capital and retained earnings. Second, creditors look to the equity to provide a margin of safety, so the higher the proportion of total capital provided by the owners, the less the risk faced by creditors. Third, if the organization earns more on investments financed with borrowed funds than it pays in interest, the return on owner's capital is magnified, or leveraged up. Capital structure indicators measure the extent of debt and equity financing.

### Equity financing

#### Definition

$$\frac{\text{Net assets}}{\text{Total assets}}$$

#### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1 - 4, line 59}}{\text{Worksheet G, col.1 - 4, line 36}}$$

#### Interpretation

Equity Financing measures the percentage of total assets financed by equity. In a not-for-profit entity, equity represents the sum of federal, state and local grants, contributions, and the accumulated earnings of the hospital. A value greater than 50 percent indicates that more of the assets are financed by equity than by debt. Very high values may indicate opportunities for debt financing. A value less than 50 percent indicates that more of the assets are financed by debt than by equity. Very low values may indicate exposure to financial risk because debt service is a fixed charge.

#### Data Quality Issues

The real equity of a hospital may not be reflected in its net assets if it is part of a larger system.

#### Data Inclusion

Numerator: none. Denominator: >\$0. Minimum value: 0%. Maximum value: +100%.

#### Benchmark

> 60%.

#### Ordinality

Higher is better.

## Debt service coverage

### Definition

$$\frac{\text{Net income} + \text{Depreciation} + \text{Interest expense}}{\text{Notes and loans payable (short term)} * (365 / \text{Days in period}) + \text{Interest expense}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G} - 3, \text{ line } 29 + \text{Worksheet A, col.3, line } 1 + 2 + 113}{\text{Worksheet G, col.1} - 4, \text{ line } 40 * (365 / \text{Days in period}) + \text{Worksheet A, col.3, line } 113}$$

### Interpretation

Debt Service Coverage measures the cash inflow per dollar of principal payments and interest expense. A positive value greater than 1.0 indicates cash flow greater than current fixed charge payments. Very high positive values may indicate an opportunity for debt financing. A positive value less than 1.0 or a negative value indicates cash flow less than current fixed charge payments. Very low values may signal a need to reassess debt policies. Refinancing may be an option if interest rates are lower in the current period than when the original debt financing occurred.

### Data Quality Issues

Debt service coverage cannot be calculated for hospitals with no notes and loans payable (short term).

### Data Inclusion

Numerator: none. Denominator: >\$0. Minimum value: -1000. Maximum value: +1000.

### Benchmark

> 3.

### Ordinality

Higher is better.

## Long-term debt to capitalization

### Definition

$$\frac{\text{Long - term debt}}{\text{Long - term debt} + \text{Net assets}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1 - 4, line 40 + 50}}{\text{Worksheet G, col.1 - 4, line 40 + 50 + 59}}$$

### Interpretation

Long-Term Debt to Capitalization measures the percentage of total capital that is debt. A value greater than 50 percent indicates that a majority of capital is debt. Very high values may indicate exposure to financial risk because debt service is a fixed charge. A value less than 50 percent indicates that the majority of capital is equity. Very low values may indicate opportunities for debt financing.

### Data Quality Issues

Other long-term liabilities may include some items that do not relate to debt, such as deferred compensation. The real equity of a hospital may not be reflected in its net assets if it is part of a larger system.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

### Benchmark

$<$  25%.

### Ordinality

Lower is better.

## **Inpatient Indicators**

CAHs service lines can be classified as inpatient and outpatient. Inpatient indicators measure the importance of Medicare as a payer of inpatient services, the cost per inpatient day, and the patient volume of inpatient services.

### **Medicare inpatient payer mix**

#### Definition

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

#### Medicare Cost Report

$$\frac{\text{Worksheet S - 3, col.6, line 14}}{\text{Worksheet S - 3, col.8, line 14} - 6 - 13}$$

#### Interpretation

Medicare Inpatient Payer Mix measures the percentage of total inpatient days that is provided to Medicare patients. A value greater than 50 percent indicates that the majority of inpatient days is for Medicare patients. Very high values may indicate lack of financial diversification due to high dependence on Medicare reimbursement. A value less than 50 percent indicates that the majority of inpatient days is for Medicaid, privately insured, and other patients.

#### Data Quality Issues

None.

#### Data Inclusion

Numerator:  $\geq 0$ . Denominator:  $> 0$  Minimum value: 0%. Maximum value: +100%.

#### Benchmark

None.

#### Ordinality

Context-specific.

## Medicare acute inpatient cost per day

### Definition

$$\frac{\text{Medicare acute inpatient cost}}{\text{Medicare inpatient days (excluding HMO)}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet D – 1 part 2, line 49}}{\text{Worksheet S – 3, col.6, line 1}}$$

### Interpretation

Medicare Acute Inpatient Cost per Day measures the average daily cost of a Medicare acute inpatient. Skilled nursing facility (SNF) days are excluded. A high value indicates a high acute inpatient cost per day for Medicare patients. A low value indicates a low acute inpatient cost per day for Medicare patients. Medicare Acute Inpatient Cost per Day is influenced by facility occupancy rates, utilization of services, and the ability to manage costs.

### Data Quality Issues

Pre-conversion data are suppressed because PPS revenue is not comparable to cost-based revenue.

### Data Inclusion

Numerator: > \$0. Denominator: > \$0. Minimum value: \$800. Maximum value: \$10,000.

### Benchmark

None.

### Ordinality

Context-specific.

## Average daily census acute

### Definition

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

### Medicare Cost Report

$$\frac{\text{Worksheet S - 3, col.8, line 14 - 5 - 6 - 13}}{\text{Days in period}}$$

### Interpretation

Average Daily Census - Acute measures the average number of acute care patients per day. A high value indicates a high average number of acute care patients. A low value indicates a low average number of acute care patients. Average Daily Census Acute is influenced by the number of acute care beds available.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq 0$ . Denominator:  $> 0$ . Minimum value: 0. Maximum value: 25.

### Benchmark

None.

### Ordinality

Context-specific.



## Average daily census swing - SNF

### Definition

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

### Medicare Cost Report

$$\frac{\text{Worksheet S - 3, col.8, line 5}}{\text{Days in period}}$$

### Interpretation

Average Daily Census Swing-SNF measures the average number of swing-SNF patients per day. A high value indicates a high average number of swing-SNF patients. A low value indicates a low average number of swing-SNF patients. Average Daily Census swing-SNF is influenced by the number of acute care beds available.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq 0$ . Denominator:  $> 0$ . Minimum value: 0. Maximum value: 25.

### Benchmark

None.

### Ordinality

Context-specific.

## Outpatient Indicators

Most CAHs receive a substantial majority of their revenue from outpatient services. Effective management of outpatient volume, revenue, and costs reduces the likelihood of financial problems. Outpatient indicators measure the proportion of total revenue provided by outpatient services, the importance of Medicare as a payer of outpatient services, and cost relative to charges for outpatient services provided to Medicare patients.

### Outpatient revenue to total revenue

#### Definition

$$\frac{\text{Total outpatient revenue}}{\text{Total patient revenue}}$$

#### Medicare Cost Report

$$\frac{\text{Worksheet G - 2, col.2, line 28}}{\text{Worksheet G - 2, col.3, line 28}}$$

#### Interpretation

Outpatient Revenues to Total Revenues measures the percentage of total revenues that is for outpatient services (including, for example, Rural Health Clinics, free-standing clinics, and home health clinics). A value greater than 50 percent indicates that the majority of total patient revenues is for outpatient services. A value less than 50 percent indicates that the majority of total patient revenues is for inpatient services.

#### Data Quality Issues

None.

#### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

#### Benchmark

None.

#### Ordinality

Context-specific.

## Hospital Medicare outpatient payer mix

### Definition

$$\frac{\text{Hospital outpatient Medicare charges}}{\text{Hospital total outpatient charges}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet D, Part V, Title XVIII, (Hospital), col.2 – 4, line 202}}{\text{Worksheet C, Part I, col.7, line 200 – (88 + 89 + 94 to 117)}}$$

### Interpretation

Hospital Medicare Outpatient Payer Mix measures the percentage of total outpatient charges that is for Medicare patients. A value greater than 50 percent indicates that the majority of outpatient charges is for Medicare patients. Very high values may indicate lack of financial diversification due to high dependence on Medicare reimbursement. A value less than 50 percent indicates that the majority of outpatient charges is for Medicaid, privately insured, and other patients.

### Data Quality Issues

Pre-conversion data are suppressed because PPS revenue is not comparable to cost-based revenue. The numerator for this indicator excludes Medicare Provider-Based Rural Health Clinic (PBRHC) charges. Since a PBRHC has a separate provider number(s), PBRHC charges are removed from the denominator.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

### Benchmark

None.

### Ordinality

Context-specific.

## Hospital Medicare outpatient cost to charge

### Definition

$$\frac{\text{Hospital Medicare outpatient costs} * 100}{\text{Hospital Medicare outpatient charges}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet D, Part V, Title XVIII, (Hospital), col.5 – 7, line 202} * 100}{\text{Worksheet D, Part V, Title XVIII, (Hospital), col.2 – 4, line 202}}$$

### Interpretation

Hospital Medicare Outpatient Cost to Charge measures the outpatient Medicare costs per dollar of Medicare outpatient charges. A value less than 50 indicates that Medicare outpatient costs are less than one half of Medicare outpatient charges. Very low values may indicate patient volume is relatively high, gross charges are relatively high, costs are relatively low, or some combination of these factors. A value greater than 50 indicates that Medicare outpatient costs are greater than one half of Medicare outpatient charges. Very high values may indicate low volume, an inadequate rate structure, an opportunity to review operating costs, or some combination.

### Data Quality Issues

Hospitals in states with rate regulation may have higher values than those hospitals in non-rate regulated states. Pre-conversion data are suppressed because PPS revenue is not comparable to cost-based revenue. For CAHs with rural health clinics, the denominator is accurate but the numerator excludes RHC Medicare costs for outpatients. Therefore, the indicator is underestimated for CAHs with RHCs.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0. Maximum value: 200.

### Benchmark

$<$  55.

### Ordinality

Lower is better.

## Labor Indicators

Labor is the largest single type of expense for most hospitals. Effective management of labor reduces the likelihood of financial problems due to productivity, number, or mix of staffing. Labor indicators measure the amount and cost of labor.

### FTEs per adjusted occupied bed

#### Definition

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

Where adjusted occupied beds =

$$\frac{(\text{Inpatient days} - \text{NF swing days} - \text{Nursery days}) * \frac{\text{Total patient revenue}}{\text{Total inpatient revenue} - \text{inpatient NF revenue} - \text{Other LTC revenue}}}{\text{Days in period}}$$

#### Medicare Cost Report

$$\frac{\text{Worksheet S} - 3, \text{ col.10, line 27}}{\text{Adjusted occupied beds}}$$

Where adjusted occupied beds =

$$\frac{\text{Worksheet S} - 3, \text{ col.8, line } (14 + 16 + 17 - 6 - 13) * \frac{\text{Worksheet G} - 2, \text{ col.3, line 28}}{\text{Worksheet G} - 2, \text{ col.1, line } (28 - 6 - 8 - 9)}}{\text{Days in period}}$$

#### Interpretation

FTEs per Adjusted Occupied Bed measures the number of full-time employees per each occupied acute care bed. A high value indicates many employees per bed. Very high values may indicate low volume and a potential opportunity to evaluate staff productivity. A low value indicates a few employees per bed. Very low values may indicate high volume or a high level of staff productivity.

#### Data Quality Issues

Indicator values for CAHs that provide long-term care may be influenced by the size of the long-term care facility relative to the overall hospital operation.

#### Data Inclusion

Numerator:  $\geq 0$ . Denominator:  $> 0$ . Minimum value: 0. Maximum value: 30.

#### Benchmark

None.

#### Ordinality

Lower is better.

## Average salary per FTE

### Definition

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

### Medicare Cost Report

$$\frac{\text{Worksheet A, col.1, line 200}}{\text{Worksheet S - 3, col.10, line 27}}$$

### Interpretation

Average Salary per FTE measures the price and mix of labor. A high value indicates that a hospital pays above average wages / salaries and/or employs relatively more high-skill occupations and/or experienced staff. A low value indicates that a hospital pays below average wages / salaries and / or employs relatively fewer high skill occupations and/or experienced staff.

### Data Quality Issues

None.

### Data Inclusion

Numerator: > 0. Denominator: > 0. Minimum value: \$20,000. Maximum value: \$100,000.

### Benchmark

None.

### Ordinality

Context-specific.

## Salaries to net patient revenue

### Definition

$$\frac{\text{Salary expense}}{\text{Net patient revenue}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet A, col.1, line 200}}{\text{Worksheet G - 3, line 3}}$$

### Interpretation

Salaries to Net Patient Revenue measures the percentage of net patient revenue that is labor costs. A value greater than 50 percent indicates that the majority of net patient revenue is for salaries. Very high values may indicate labor intensive organizations, employment of medical staff, or old plant and equipment. A value less than 50 percent indicates that the majority of net patient revenue is for supplies, equipment, and other expenses. Very low values may indicate capital-intensive organizations or new plant and equipment.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

### Benchmark

None.

### Ordinality

Lower is better.

## Growth Indicators

Long-term financial viability of a CAH is strongly influenced by the rate of growth in operating revenue compared to the rate of growth in operating expenses. Growth in operating revenue greater than operating expenses results in greater operating profitability, while growth in revenue less than expenses results in lower profitability. Growth indicators measure the short-term (1-year) and medium-term (3-year) changes in operating revenue and expenses.

### 1-Year change in operating expenses

#### Definition

$$\frac{[\text{Operating expenses (year } t) - \text{Operating expenses (year } t - 1)]}{\text{Operating expenses (year } t - 1)}$$

#### Medicare Cost Report

$$\frac{[\text{Worksheet G - 3, line 4 (year } t)] - [\text{Worksheet G - 3, line 4 (year } t - 1)]}{[\text{Worksheet G - 3, line 4 (year } t - 1)]}$$

#### Interpretation

1-year Change in Operating Expenses measures the 1-year percentage change in operating expenses. Positive values indicate increases in operating expenses over a 1-year time period. Growth in operating expenses less than growth in operating revenues results in greater profitability as measured by operating margin. Growth in operating expenses greater than growth in operating revenues results in lower profitability.

#### Data Quality Issues

None.

#### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: none. Maximum value: none.

#### Benchmark

None.

#### Ordinality

Lower is better.



## 1-Year change in operating revenue

### Definition

$$\frac{[\text{Operating revenue (year t)} - \text{Operating revenue (year t - 1)}]}{\text{Operating revenue (year t - 1)}}$$

### Medicare Cost Report

$$\frac{[\text{Worksheet G - 3, line 3 + (8 to 22) + 24 (year t)}] - [\text{Worksheet G - 3, line 3 + (8 to 22) + 24 (year t - 1)}]}{[\text{Worksheet G - 3, line 3 + (8 to 22) + 24 (year t - 1)}]}$$

### Interpretation

1-year Change in Operating Revenue measures the 1-year percentage change in operating revenue. Positive values indicate increases in operating revenue over a 1-year time period. Growth in operating revenue greater than growth in operating expenses results in higher profitability as measured by operating margin. Growth in operating revenue less than growth in operating expenses results in lower profitability.

### Data Quality Issues

None.

### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: none. Maximum value: none.

### Benchmark

None.

### Ordinality

Higher is better.

### **3-Year change in operating expenses**

#### Definition

$$\frac{[\text{Operating expenses (year t)} - \text{Operating expenses (year t - 3)}]}{\text{Operating expenses (year t - 3)}}$$

#### Medicare Cost Report

$$\frac{[\text{Worksheet G - 3, line 4 (year t)}] - [\text{Worksheet G - 3, line 4 (year t - 3)}]}{[\text{Worksheet G - 3, line 4 (year t - 3)}]}$$

#### Interpretation

3-year Change in Operating Expenses measures the 3-year percentage change in operating expenses. Positive values indicate increases in operating expenses over a 3-year time period. Growth in operating expenses less than growth in operating revenues results in greater profitability as measured by operating margin. Growth in operating expenses greater than growth in operating revenues results in lower profitability.

#### Data Quality Issues

None.

#### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: none. Maximum value: none.

#### Benchmark

None.

#### Ordinality

Lower is better.

### **3-Year change in operating revenue**

#### Definition

$$\frac{[\text{Operating revenue (year t)} - \text{Operating revenue (year t - 3)}]}{\text{Operating revenue (year t - 3)}}$$

#### Medicare Cost Report

$$\frac{[\text{Worksheet G - 3, line 3 + (8 to 22) + 24 (year t)}] - [\text{Worksheet G - 3, line 3 + (8 to 22) + 24 (year t - 3)}]}{[\text{Worksheet G - 3, line 3 + (8 to 22) + 24 (year t - 3)}]}$$

#### Interpretation

3-year Change in Operating Revenue measures the 3-year percentage change in operating revenue. Positive values indicate increases in operating revenue over a 3-year time period. Growth in operating revenue greater than growth in operating expenses results in higher profitability as measured by operating margin. Growth in operating revenue less than growth in operating expenses results in lower profitability.

#### Data Quality Issues

None.

#### Data Inclusion

Numerator: none. Denominator: > \$0. Minimum value: none. Maximum value: none.

#### Benchmark

None.

#### Ordinality

Higher is better.

## Other Indicators

CAHs use many financial and operational indicators to manage their organizations. Other indicators include a variety of commonly used indicators related to physical plant, patient deductions, Medicaid, and uncompensated care.

### Average age of plant

#### Definition

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

#### Medicare Cost Report

$$\frac{\text{Worksheet G, col.1} - 4, \text{ line } 14 + 16 + 18 + 20 + 22 + 24 + 26 + 28}{\text{Worksheet A, col.3, line } (1 + 2) * (365 / \text{Days in period})}$$

#### Interpretation

Average Age of Plant measures the average accounting age in years of the fixed assets of an organization. It may differ from the average chronological age because of depreciation practices. Higher values indicate greater amounts of older assets. Very high values may indicate a need for fixed asset replacement. Lower values indicate greater amounts of newer assets. Very low values may indicate a new building or recent replacement of fixed assets.

#### Data Quality Issues

High average age of plant can happen if annual depreciation expense for assets continue to be charged (and added to accumulated depreciation) long after assets are fully depreciated.

#### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0. Maximum value: 50.

#### Benchmark

$<$  10 years.

#### Ordinality

Lower is better.

## **Patient deductions**

### Definition

$$\frac{\text{Contractual allowances + Discounts}}{\text{Gross total patient revenue}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet G – 3, line 2}}{\text{Worksheet G – 3, line 1}}$$

### Interpretation

Patient Deductions measures the allowances and discounts per dollar of total patient revenue. A high value indicates higher average discounts and/or allowances. Higher values may result from higher volume of services provided, higher rate structures, or higher penetration of managed care contracts. A low value indicates lower average discounts and/or allowances. Lower values may result from lower volume of services provided, lower rate structures, or less penetration of managed care contracts.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

### Benchmark

None.

### Ordinality

Lower is better.

## Medicaid payer mix

### Definition

$$\frac{\text{Medicaid charges}}{\text{Total patient charges}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet S – 10, line 6}}{\text{Worksheet C, Part 1, line 200, column 8}}$$

### Interpretation

Medicaid payer mix measures the percentage of total patient charges for Medicaid patients. A value greater than 50 percent indicates that the majority of total patient charges is for Medicaid patients. Very high values may indicate lack of financial diversification due to high dependence on Medicaid reimbursement. A value less than 50 percent indicates that the majority of patient charges is not from Medicaid beneficiaries, but from patients with other forms of health insurance. It is important to note that total charges vary by payer and actual payments are not always the same percent of charges for all payers.

### Data Quality Issues

None.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

### Benchmark

None.

### Ordinality

Context-specific.

## Uncompensated care

### Definition

$$\frac{\text{Charity care + bad debt}}{\text{Total operating expenses}}$$

### Medicare Cost Report

$$\frac{\text{Worksheet S - 10, line 23 + 29}}{\text{Worksheet G - 3, line 4}}$$

### Interpretation

Uncompensated care measures charity care and bad debt as a percentage of total operating expenses. A high value indicates a greater percentage of total operating expenses for which no patient or third party payment was received. Higher values may result from higher rates of un-insured and under-insured patients, prevalence of high deductible health plans among patients, and other payment factors. A low value indicates a lower percentage of total operating expenses for which no payment was received.

### Data Quality Issues

There is variation in reporting of charity care and bad debt.

### Data Inclusion

Numerator:  $\geq$  \$0. Denominator:  $>$  \$0. Minimum value: 0%. Maximum value: +100%.

### Benchmark

None.

### Ordinality

Lower is better.

**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.

The authors of this report are the CAH Financial Indicators Report Team at the North Carolina Rural Health Research and Policy Analysis Center, Cecil G. Sheps Center for Health Services Research. Email: [monitoring@flexmonitoring.org](mailto:monitoring@flexmonitoring.org)

**Flex Monitoring Team**  
<http://www.flexmonitoring.org>

**University of Minnesota**  
Division of Health Services Research & Policy  
420 Delaware Street, SE, Mayo Mail Code 729  
Minneapolis, MN 55455-0392  
612.624.8618

**University of North Carolina at Chapel Hill**  
Cecil G. Sheps Center for Health Services Research  
725 Martin Luther King, Jr. Boulevard, CB # 7590  
Chapel Hill, NC 27599-7590  
919.966.5011

**University of Southern Maine**  
Muskie School of Public Service  
PO Box 9300  
Portland, ME 04104-9300  
207.780.4435





**Flex  
Monitoring  
Team**

University of Minnesota  
University of North Carolina at Chapel Hill  
University of Southern Maine