



Flex Monitoring Team

FEDERAL USERS:

A STEP-BY-STEP GUIDE TO USING CAHMPAS

CAHMPAS

Critical Access Hospital Measurement & Performance Assessment System

ABOUT CAHMPAS

CAHMPAS is a free tool developed by the Flex Monitoring Team to help you better understand the critical access hospitals around the country. CAHMPAS allows you to explore financial, quality and community benefit performance data for a given hospital—and compare that data across relevant peer groups. With this tool, you can create graphs that compare a hospital's values to state and national medians and even show trends over time.

This step-by-step Guide will walk you through the basics of the CAHMPAS system. We encourage you to explore the nuances of the data and develop strategies to address CAH performance. We hope that this tool will help you make the most relevant performance comparisons, collaborate with peers, and effectively allocate funding.

We are continually updating and improving CAHMPAS to best meet the needs of our users. We intend to ensure that this Guide reflects any large changes made to CAHMPAS, however not all minor updates will be reflected immediately in this Guide. Please email the CAHMPAS team (monitoring@flexmonitoring.org) if you have any questions or feedback.

To begin using CAHMPAS, follow the steps below.

GETTING STARTED

1) LOG IN

To access CAHMPAS, click [here](http://cahmpas.sirs.unc.edu) or visit <http://cahmpas.sirs.unc.edu>. Enter your username and password on this screen. If you need login credentials, please contact us at monitoring@flexmonitoring.org.

CAH Measurement and Performance Assessment System (CAHMPAS)

Flex Monitoring Team
University of Minnesota
University of North Carolina at Chapel Hill
University of Southern Maine

CAHMPAS
Critical Access Hospital Measurement & Performance Assessment System

Login

Username:

Password:

☐ Remember Me

Login



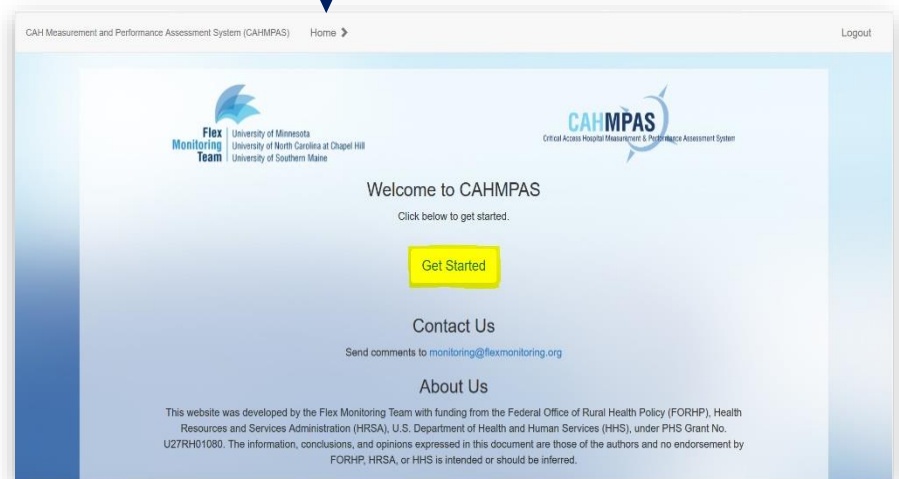
2) GET STARTED

Once you log in, you will be directed to the CAHPAS home page. Notice that the email to contact us is available on this home page as well. You may navigate back to this page at any time by clicking the home button on the grey navigation bar (under the blue arrow).

Click the yellow, highlighted 'Get Started' button to begin.

For federal users, there are eight available graph types and tools:

1. Compare Individual Hospitals
2. Compare Group Trends
3. Compare Relative Position of All Indicators
4. View Financial Distress Index
5. Download Hospital Data
6. Financial Indicators
7. Financial Indicators Chart
8. Indicators Report

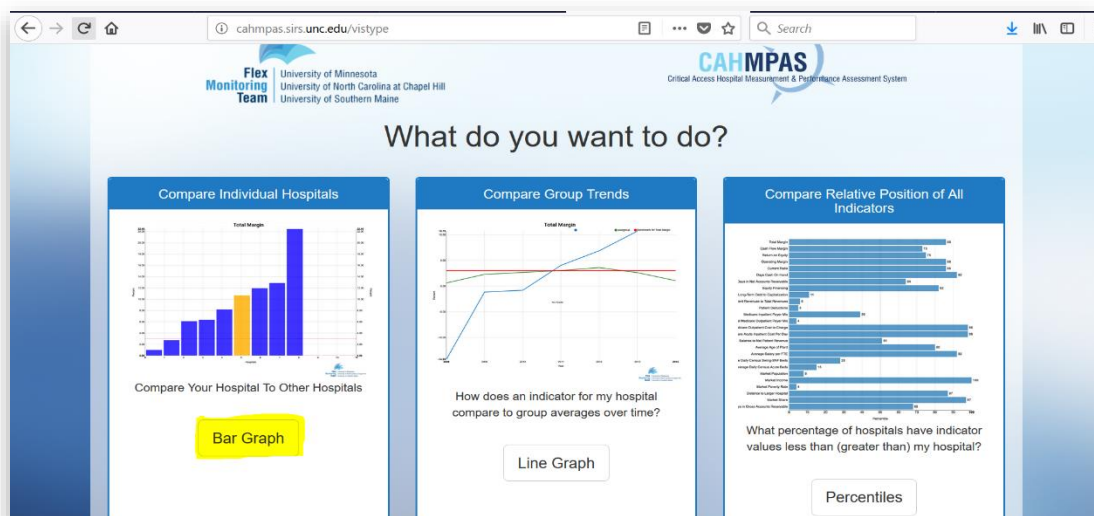


BAR GRAPH

1) SELECT A GRAPH TYPE

The first graph, the bar graph titled “Compare Individual Hospitals,” allows you to compare a financial indicator of your choice for an individual or group of critical access hospitals. We will begin with this graph type.

Click the yellow, highlighted 'Bar Graph' button to select this graph.





2) SELECT AN INDICATOR


CAHMPAS offers a number of financial measures and ratios for your use. These indicators include profitability, liquidity, capital structure, outpatient, inpatient, growth, labor, other, and financial distress metrics. For more information on these indicators and how best to use them, see the *CAH Financial Indicators Primer and Calculator Resources* by visiting [here](#).

Notice that the grey navigation bar at the top of the screen has “followed” your progress through the system. If you want to return to the graph options screen, for example, you need only to click ‘Set Graph Type’ (below the blue arrow) to return to that screen.


Let’s take a look at a common profitability indicator, operating margin. Click the button in the red box.



CAH Measurement and Performance Assessment System (CAHMPAS) Home > Set Graph Type > Set Indicator >



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CAHMPAS
Critical Access Hospital Measurement & Performance Assessment System

Select an indicator to graph:

Financial Performance

Profitability Indicators

Total Margin

Cash Flow Margin

Return on Equity

Operating Margin

Liquidity Indicators

Current Ratio

Days Cash On Hand

Days in Net Accounts Receivable

Days in Gross Accounts Receivable

Capital Structure Indicators

Equity Financing

Debt Service Coverage

Long-Term Debt to Capitalization

Service Line

Operations



3) SELECT A CUSTOM GROUP

This screen allows you to create groups of hospitals or select individual hospitals to plot on your bar graph. You can filter which hospitals are shown in these custom groups by selecting the drop-down menus. To select additional custom groups, select the “Add Group” button (under the blue arrow). The following filters are available to you:

- State
- Net Patient Revenue
 - <\$10 million
 - \$10-20 million
 - >\$20 million
- Rural Health Clinic
 - Yes/No
- Long-Term Care
 - Yes/No
- Government Ownership
 - Yes/No
- System Affiliation
 - Yes/No

Custom Group Name:

43 Hospitals

State: Net Patient Revenue:
 Rural Health Clinic:
 Long-Term Care:
 Government Owned:
 Data from Year:

4) SELECT AN INDIVIDUAL HOSPITAL

To add a single hospital to your graph, select the “Add Hospital” button, which will bring up a list of critical access hospitals available to you (example pictured). You can filter your results by using the search bar in the top right corner of the dialogue box. Select a hospital by clicking the “Add” button.

Add additional hospitals by selecting the “Add Hospital” button again and selecting another hospital from the dialogue list. When finished adding your groups and hospitals, click “Draw Graph.”

Single Hospital Selection

Show entries Search:

CAHID	Hospital Name	City	Action
YS001	Sample Hospital #1	City 1	<input type="button" value="Add"/>
YS0010	Sample Hospital #10	City 10	<input type="button" value="Add"/>
YS0011	Sample Hospital #11	City 11	<input type="button" value="Add"/>
YS0012	Sample Hospital #12	City 12	<input type="button" value="Add"/>
YS0013	Sample Hospital #13	City 13	<input type="button" value="Add"/>
YS0014	Sample Hospital #14	City 14	<input type="button" value="Add"/>
YS0015	Sample Hospital #15	City 15	<input type="button" value="Add"/>
YS0016	Sample Hospital #16	City 16	<input type="button" value="Add"/>
YS0017	Sample Hospital #17	City 17	<input type="button" value="Add"/>
YS0018	Sample Hospital #18	City 18	<input type="button" value="Add"/>

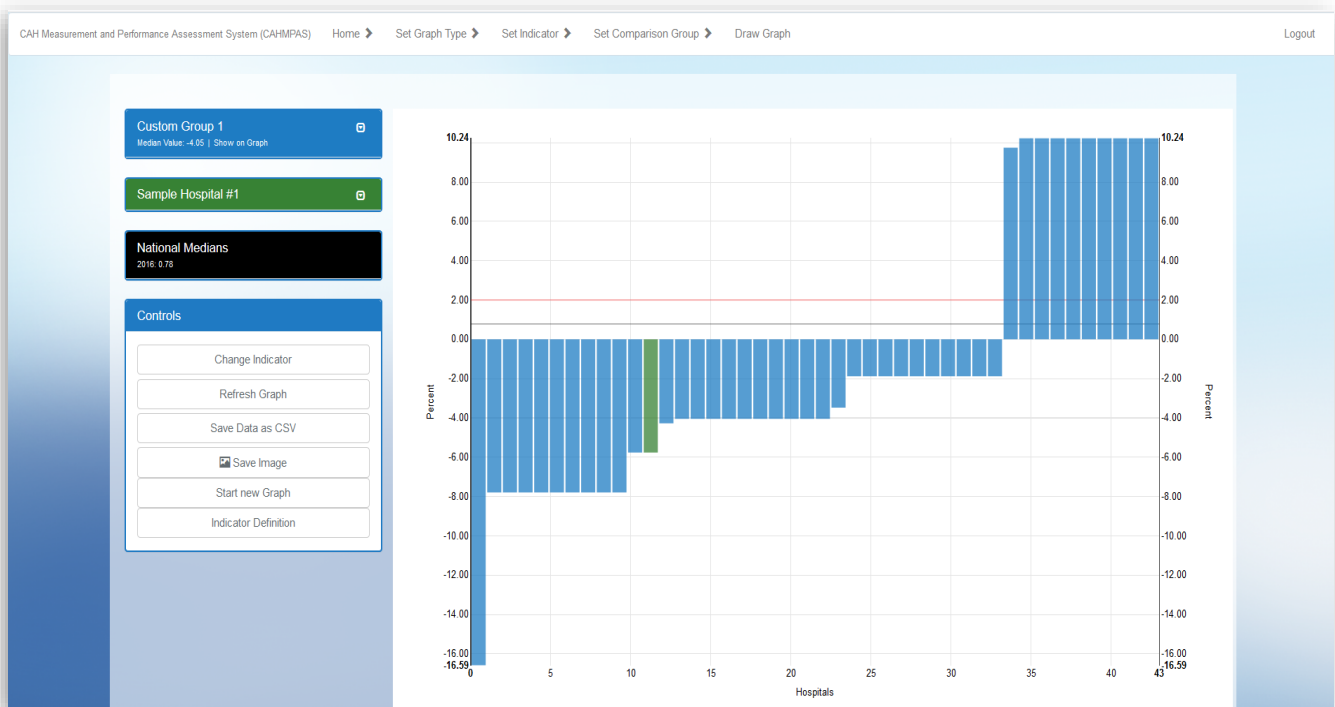
5) BAR GRAPH: OVERVIEW

In the graph below, the columns are color-coordinated according to their group. For example, the blue columns represent “Custom Group 1,” which is shown in the blue group box on the left side of your screen. The green column represents an individual hospital selected, in this case called “Sample Hospital #1,” which is shown in the green group box stated on the left side of your screen.

- To see the specific value of the indicator for these hospitals, hover over the columns.
- The red horizontal line on the graph represents the financial benchmark: in the case of our operating margin, your hospital’s value would ideally be at or above this line. The black horizontal line represents the US



median for the financial ratio.



6) BAR GRAPH: SIDE BARS

On the left side of the screen, you will see boxes which display your custom group or hospital's characteristics. This box reminds you of the filters you chose for your groups and/or hospitals from the previous screen, including their:

- State
- Net revenue
- Rural health clinic
- Long-term care
- Government ownership
- System affiliation
- Data year

Click the drop-down menu under the blue arrow to see/unsee these characteristics for each group.

Custom Group 1
Median Value: -2.44 | Show on Graph

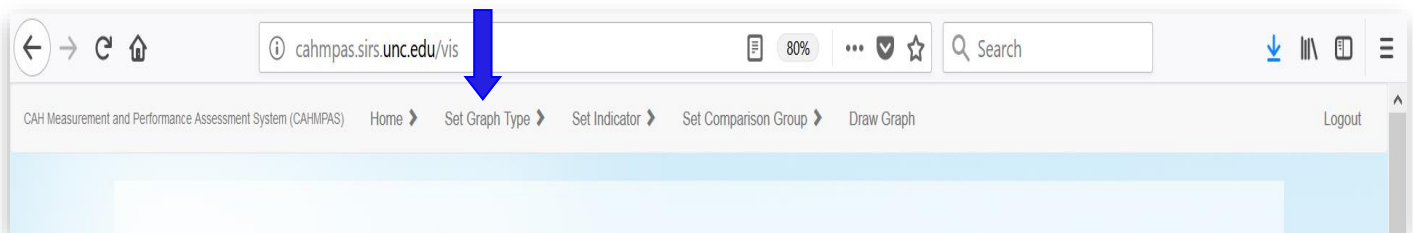
State Geography:	YS
Net Patient Revenue	All
Rural Health Clinic:	All
Long Term Care:	All
Government Owned:	All
Data Year:	2016



7) RETURNING TO PREVIOUS SCREENS

The grey navigation bar at the top of your screen (and shown below) allows you to move throughout the CAHMPAS system seamlessly. Once you have a graph drawn, you may want to change the indicator—perhaps you want to show the cash flow margin rather than the operating margin—or you may even want to change from a bar to a line graph. This navigation bar allows you to return to those screens by clicking “Set Indicator” or “Set Graph Type.”

To return to the graph type selection page, simply click the “Set Graph Type” button (underneath the blue arrow) on your grey navigation bar.



LINE GRAPH

1) SELECT A GRAPH TYPE

The “Set Graph Type” buttons returns us to a familiar screen, where we previously chose from one of three types of graphs:

- Compare individual hospitals using a bar graph
- Compare group trends using a line graph
- Compare relative position of all indicators using a percentile bar graph

Let's take a look at the line graph.

Click the yellow, highlighted ‘Line Graph’ button to select this graph.



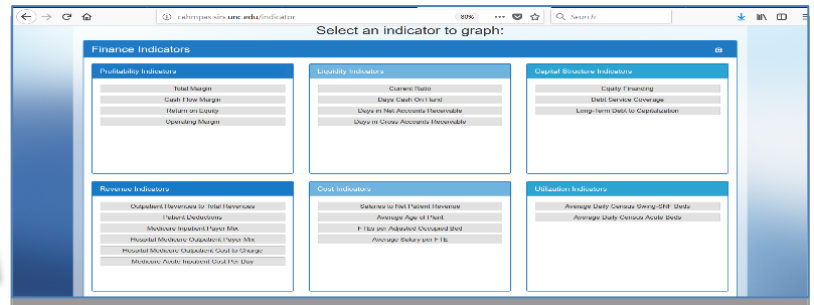


2) SET YOUR CRITERIA

Just like with the bar graph, you will now need to select your specific financial indicator and your chosen hospitals/custom groups before drawing the line graph. Recall the following step sequence that we used with the bar graph:

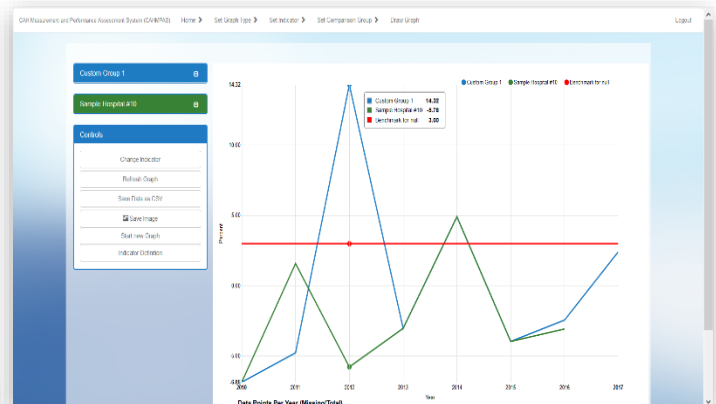
- Select an indicator (i.e., Current Ratio)
- Select Your Custom Groups or Individual Hospitals

TIP: CAHMPAS will automatically populate this screen with your previously chosen hospitals and/or custom groups. Feel free to utilize these groups; otherwise, you may delete them and begin again with different hospitals/groups.



3) LINE GRAPH: OVERVIEW

The graph to your right depicts how a line chart in CAHMPAS may look, with one custom group and one individual hospital selected. Utilizing the key at the top right corner of your graph (and enlarged below), you will notice that the blue line represents your custom group, the green line represents a single selected hospital from the previous screen, and the red line represents the benchmark for your financial ratio. Note: Colors may vary.



● Custom Group 1 ● Sample Hospital #1 ● Benchmark for null

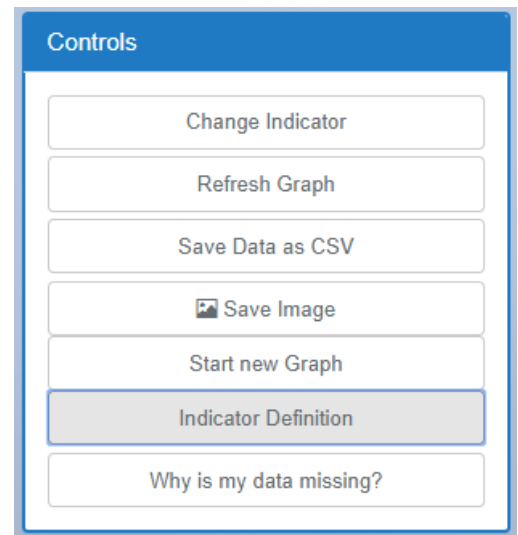
Notice also that the options panel to the left of your graph is the same for both the bar graph and the line graph. As mentioned previously, you can use the drop-down menu to recall the characteristics of your selected groups.



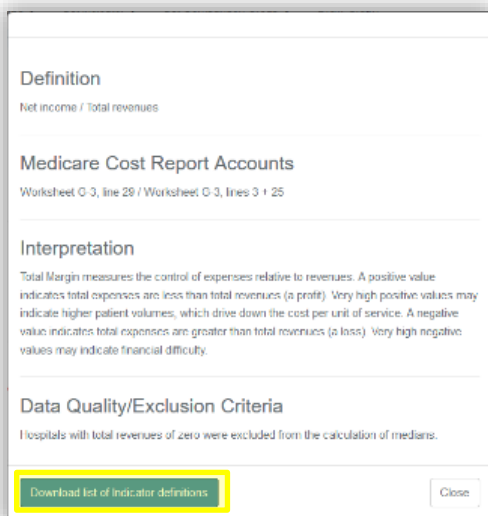
4) LINE GRAPH: CONTROLS BOX

The control box to the left side of your screen allows you to refresh your graph, save the graphed data with Microsoft Excel, save the graph as an image, understand the financial indicator you chose, change your indicator, and return to the home screen to begin a new graph. These capabilities are available both for the line and bar graphs.

Note: When opening a saved image, convert it to a PDF or JPEG file. Images are automatically saved as PNG files, but the PNG files may not display clearly.



5) UNDERSTANDING YOUR INDICATOR



Click on the “Indicator Definition” button from the “Controls” box in order to see a definition, equation, interpretation and quality explanation for your indicator. The image to the left explains how Total Margin is calculated for a graph.

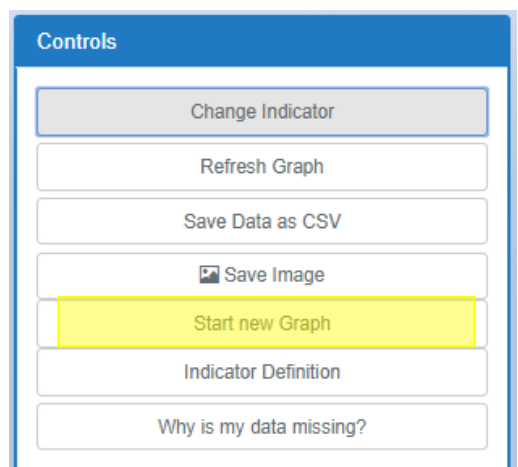
Click the “Download List of Financial Indicators” button, if you would like a list of the indicators used in CAHMPAS. This may be helpful if you plan on downloading and utilizing the data provided in CAHMPAS.

6) ALTER YOUR INDICATOR FROM THE GRAPH

Click the “Change Indicator” button from the “Controls” box in order to switch your chosen financial indicator to another, without returning to any previous screens. A dialogue box will appear, asking you to select your indicator type and then your specific indicator.

7) RETURN TO THE CHART SELECTION SCREEN

Click the “Start New Graph” button from the “Controls” box in order to return to the home page where we selected our graph types (bar, line, and percentile).

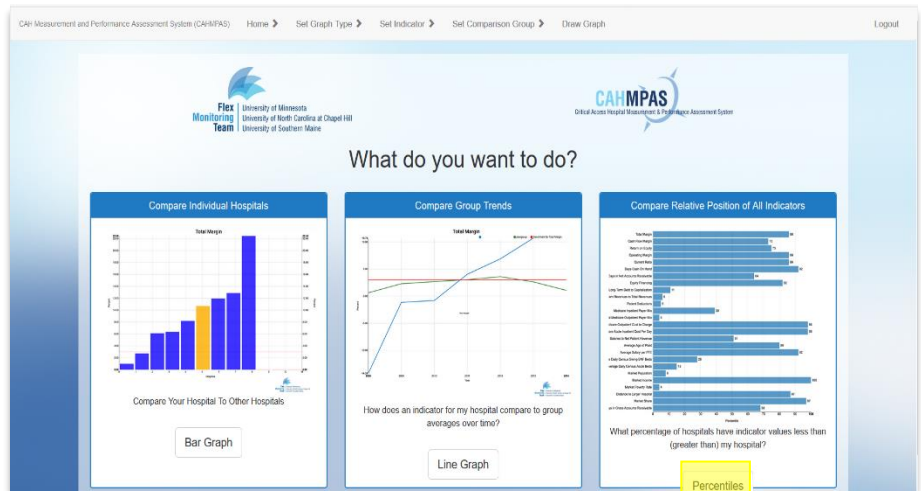




1) SELECT A GRAPH TYPE

The “Start New Graph” buttons returns us to a familiar screen, where we previously chose from one of three types of graphs:

- Compare individual hospitals using a bar graph
- Compare group trends using a line graph
- Compare relative position of all indicators using a percentile bar graph



Let’s take a look at the percentile bar graph. Click the yellow, highlighted ‘Percentiles’ button to select this graph.

2) SELECT A HOSPITAL

This page allows you to select a hospital in order to view its financial performance as a percentile in the dashboard. You can search for a specific hospital by using the search bar at the top right side of your screen. To view a specific hospital, select the “View Dashboard” button.

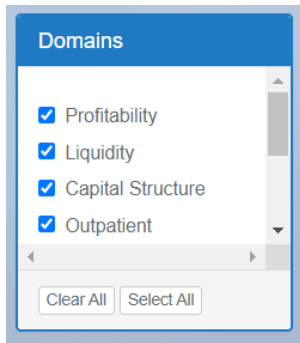
Choose a hospital				
Show 10 entries	Search:			
CA-ID	Name	City	CMS ID	Action
YS001	Sample Hospital #1	City 1	999991	View Dashboard
YS0010	Sample Hospital #10	City 10	9999910	View Dashboard
YS0011	Sample Hospital #11	City 11	9999911	View Dashboard
YS0012	Sample Hospital #12	City 12	9999912	View Dashboard
YS0013	Sample Hospital #13	City 13	9999913	View Dashboard
YS0014	Sample Hospital #14	City 14	9999914	View Dashboard
YS0015	Sample Hospital #15	City 15	9999915	View Dashboard



3) PERCENTILES GRAPH: OVERVIEW

In the image above, the bars indicate the percentile under which your chosen hospital falls compared to its peers for each financial indicator. To see the hospital's indicator value, specific percentile, and a state/national median associated with the indicator, hover your cursor over bars. You may also change 1) the scope of the graph (state or national) and 2) the year for the data from the controls on the left side of your screen.

4) PERCENTILES GRAPH: DOMAINS



From the left side of your screen, you may check or uncheck boxes based on what types of indicators you want to view on the graph. These include:

- Profitability
- Liquidity
- Capital Structure
- Outpatient
- Inpatient
- Growth
- Labor
- Other

Use the “clear all” and “select all” buttons to select and deselect all indicators at once.



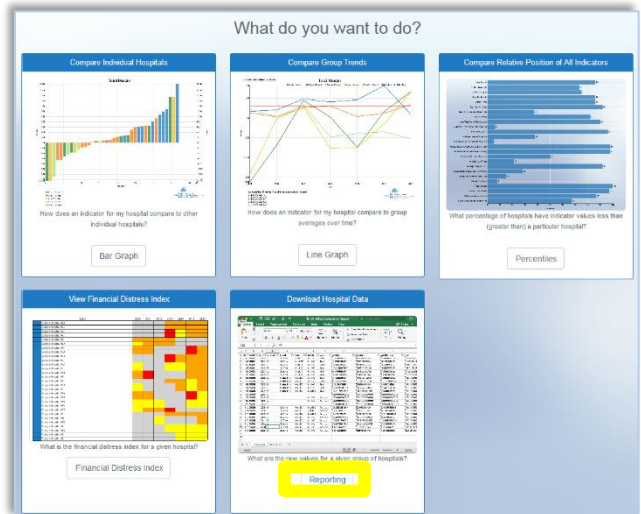
REPORTING TOOL

1) SELECT THE REPORTING TOOL

Click the “Set Graph Type” button from your grey navigation bar in order to return to a familiar screen, where we previously chose from one of three types of graphs:

- Compare individual hospitals using a bar graph
- Compare group trends using a line graph
- Compare relative position of all indicators using a percentile bar graph

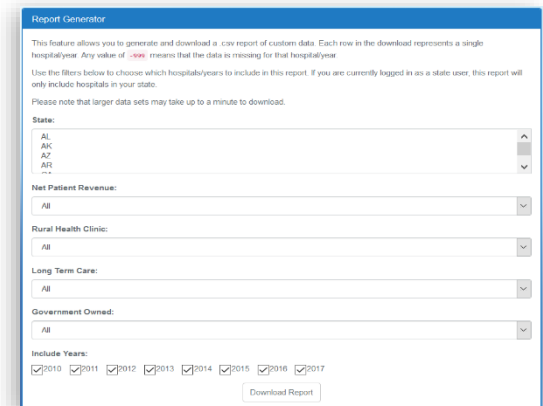
From this screen, scroll down and click the “Reporting” button. This tool allows you to download data from CAHMPAS and the next step will allow you to filter down that data to suit your needs.



2) SELECTING YOUR FILTERED DATA

This screen allows you to filter the hospitals in your download by their state, net patient revenue, provisions of long-term care, government ownership, system affiliation, and rural health clinic ownership. Additionally, you can select or deselect whole years of data.

Click the drop-down menus to narrow your results.



3) VISUALIZING DATA

The screen to the right depicts the downloaded data on the first tab, titled “Hospitals.” The second tab, titled “Indicators,” provides a list of the financial indicators used in CAHMPAS—which you can use to match with the headers shown below. Keep in mind, values of -999 represent data that is missing for that hospital or year.

FileHomeInsertDrawPage LayoutFormulasDataReviewViewHelp																			ShareComments		
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ClipboardFontParagraphAlignmentNumberStylesCells																			Sensitivity		
A1																					
	id	cahid	year	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	id	cahid	year	cahstate	revcat	hassfn	hasrhc	govt	cahcity	name	cmsid	regname	totmarg	cashflowmarg	opmarg	curratio	dayscoh	daysrevin	eq		
2	11380	20004	2011	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-9.46084	-18.1187	-19.9486	-22.4644	1.396679	8.211761	53.46904	75	
3	11381	20004	2012	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-0.35287	-15.2341	-0.66331	-20.2309	2.269121	17.6613	88.54435	83	
4	11382	20004	2013	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-4.01607	-19.2358	-7.56513	-23.4031	2.86831	46.66667	55.88492	84	
5	11383	20004	2014	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	6.361356	-5.4885	11.82577	-9.59573	1.986802	53.51702	53.39925	68	
6	11384	20004	2015	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-0.56892	-8.25289	-1.03413	-12.4805	3.495507	48.4442	69.22914	64	
7	11385	20004	2016	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-3.70746	-21.2333	-8.00828	-27.0201	2.119885	23.11108	69.26163	64	
8	11386	20004	2017	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	4.841036	-5.68538	9.790185	-9.22824	2.854555	33.17558	90.72292	71	
9	11387	20004	2018	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-6.29007	-13.3088	-20.1636	-15.698	1.5087	16.19305	62.55559	4	
10	11388	20004	2019	20	Under 10r	Has LTC	Has RHC	Nongovt	City 20004	Hospital 2	20004	West	-3.07805	-8.46204	-11.7406	-12.0147	0.925855	21.09298	29.17075	42	
11	11389	20001	2011	20	Under 10r	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	10.56529	6.239362	7.969163	1.394215	5.488864	276.2814	60.10623	1	
12	11390	20001	2012	20	Under 10r	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	7.061864	9.289101	5.347102	4.713329	2.374435	39.16248	38.66714	81	
13	11391	20001	2013	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	9.86933	11.50956	7.499288	7.842557	2.346537	81.28317	59.98854	81	
14	11392	20001	2014	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	1.116141	2.603795	0.871595	-3.21239	2.563375	66.09995	79.35252	84	
15	11393	20001	2015	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	5.660739	4.288237	4.738548	-1.28222	2.525411	65.01372	89.36159	81	
16	11394	20001	2016	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	6.272726	-4.28637	5.953048	-10.8184	0.898946	10.0513	72.75237	58	
17	11395	20001	2017	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	2.422636	-3.4792	2.320236	-8.37149	1.25918	132.8833	83.51413	5	
18	11396	20001	2018	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	5.115327	7.942516	5.048161	1.063106	2.58656	80.45881	75.19587	62	
19	11397	20001	2019	20	10-20m	Has LTC	No RHC	Govt	City 20001	Hospital 2	20001	West	1.836054	7.754996	1.975136	0.080985	2.135252	76.07596	72.51879	61	
20	11398	20005	2011	20	10-20m	Has LTC	Has RHC	Nongovt	City 20005	Hospital 2	20005	West	-0.85501	-2.02971	-1.30926	-9.26414	2.643457	86.4094	79.64176	81	
21	11399	20005	2012	20	10-20m	Has LTC	Has RHC	Nongovt	City 20005	Hospital 2	20005	West	5.481919	-4.27538	8.287326	-10.7001	4.159799	104.4281	67.58251	81	



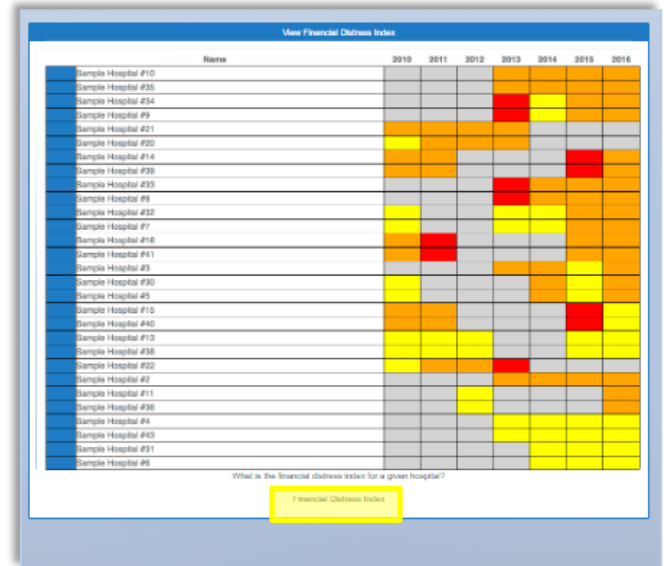
FINACIAL DISTRESS INDEX

1) SELECT THE FINANCIAL DISTRESS INDEX TOOL

Another feature of CAHPAS is the Financial Distress Index. The Financial Distress Index Model (FDI) predicts the probability of rural hospital financial distress and subsequent closure within two years.

Select Financial Distress Index.

For more specific information on how the model works, read: GM Holmes, BG Kaufman and GH Pink. Predicting Financial Distress in Rural Hospitals, *Journal of Rural Health*, Summer 2017;33(3):239-249

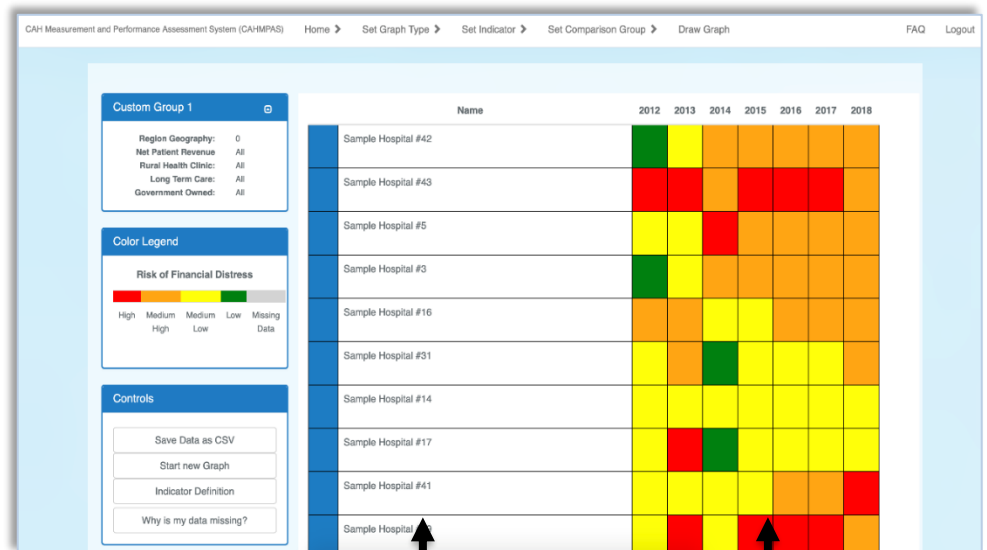


2) FDI: OVERVIEW

The FDI Model results categorize hospitals into one of four risk categories:

- low (green)
- medium-low (yellow)
- medium-high (orange)
- high (red)

Risk categories are presented by year.



Hospital names

Hovering over a hospital field will show you the town name and state abbreviation

Predicted distress level by year



FINANCIAL INDICATORS

1) SELECT THE FINANCIAL INDICATORS TOOL

Another feature of CAHMPAS is the Financial Indicators Tool. The Financial Indicators Tool shows the medians of a state's financial indicators in comparison to national medians or benchmarks.

Select Financial Indicators Tool.



What are my state's financial indicators?

Financial Indicators

2) FINANCIAL INDICATORS TOOL: OVERVIEW

The Financial Indicator Tool shows results for a state's hospitals compared national medians using the following financial indicators:

PROFITABILITY INDICATORS

Profitability Indicators	Liquidity Indicators	Capital Structure Indicators
Total Margin	Current Ratio	Equity Financing
Cash Flow Margin	Days Cash on Hand	Debt Service Coverage
Return on Equity	Days Net Revenue in Accounts Receivable	Long-Term Debt to Capitalization
Operating Margin	Days Gross Revenue in Accounts Receivable	

SERVICE LINE INDICATORS

Inpatient Indicators	Outpatient Indicators
Medicare Inpatient Payer Mix	Outpatient Revenues to Total Revenues
Medicare Acute Inpatient Cost Per Day	Hospital Medicare Outpatient Payer Mix
Average Daily Census Swing-SNF Beds	Hospital Medicare Outpatient Cost to Charge
Average Daily Census Acute Beds	



OPERATIONS INDICATORS

Labor Indicators	Other Indicators
Salaries to Net Patient Revenue	Patient Deductions
FTEs per Adjusted Occupied Bed	Average Age of Plant
Average Salary per FTE	Uncompensated Care
	Medicaid Payer Mix

The results for the selected state and selected year are shown in comparison to national medians.

3) SELECT YOUR STATE AND YEAR

When you open the table, the state of Alaska automatically populates. To change states, you will need to select a state. To change the state, go to the **Report Settings** button at the bottom of the table.

Select Report Settings

Displayed Indicators

- ☒ Operating Margin
- ☒ Total Margin
- ☒ Salaries to Net Patient Revenue
- ☒ Days Cash On Hand
- ☒ Days in Net Accounts Receivable
- ☒ Debt Service Coverage
- ☒ Average Age of Plant
- ☒ Medicare Inpatient Payer Mix
- ☒ Hospital Medicare Outpatient Payer Mix
- ☒ Long-Term Debt to Capitalization
- ☒ Days in Gross Accounts Receivable
- ☒ Average Daily Census Swing-SNF Beds
- ☒ Average Daily Census Acute Beds
- ☒ Market Population
- ☒ Market Income
- ☒ 1-Year change in operating expenses
- ☒ 1-Year change in operating revenue
- ☒ Cash flow margin
- ☒ Return on equity
- ☒ Current ratio
- ☒ Medicare acute inpatient cost per day
- ☒ Outpatient revenue to total revenue
- ☒ Hospital Medicare outpatient cost to charge
- ☒ FTEs per adjusted occupied bed
- ☒ Patient deductions
- ☒ Uncompensated care
- ☒ Medicaid payer mix
- ☒ Equity Financing
- ☒ Plant Age
- ☒ Average Salary per FTE
- ☒ Market Poverty Rate
- ☒ Distance to Larger Hospital
- ☒ Market Share
- ☒ 3-Year change in operating expenses
- ☒ 3-Year change in operating revenue

Year

2019

State

Alaska

Create Report

4) SET YOUR CRITERIA



You now can set the criteria you would like to view from the pop-up menu. All financial indicators will automatically be selected with a blue check mark.

- 1) Select your state
- 2) Select the year of data
- 3) Select the indicators you would like on your report. (If the box is checked, the financial indicator will be displayed in the report. If you would like certain indicators not to show, uncheck the box next to the indicator.)
- 4) Lastly, click **create report** at the bottom of the pop-up.

5) OVERVIEW

Once you select create report, you will see the table with financial indicators for the state you selected.

Financial indicators grouped by domains (Profitability, Liquidity, Capital Structure, Inpatient, Outpatient, Growth, Labor, and Other).

For each indicator, the table shows, benchmark, U.S. median, percent of hospitals in state worse than benchmark, number of hospitals worse than benchmark, and number of hospitals with complete data.



01: Performance on Select Financial Indicators Compared to National Benchmarks/Medians 2019

Total number of hospitals: 15

Indicator	Benchmark	US Median	Percent of hospitals in state worse than benchmark *	Number of hospitals worse than benchmark	Number of hospitals with complete data
Profitability					
Cash Flow Margin <i>(higher is better)</i>	5%	6%	27%	4	15
Operating Margin <i>(higher is better)</i>	2%	0%	47%	7	15

6) UNDERSTANDING YOUR INDICATOR

Below each indicator, a statement (e.g., “higher is better” or “lower is better”) lets you know how to interpret the indicator. The image below shows this for cash flow margin.



Indicator	Benchmark	US Median	Percent of hospitals in state worse than benchmark *	Number of hospitals worse than benchmark	Number of hospitals with complete data
Profitability					
Cash Flow Margin (higher is better)	5%	6%	27%	4	15

7) DOWNLOADING LIST OF BELOW BENCHMARK HOSPITALS

Another feature of the financial indicators tool is the ability to download a list of “below benchmark hospitals” – hospitals for each state that have indicators that are below benchmark. Most benchmarks have been established by the Flex Monitoring Team to provide reference point as a basis of comparison among the financial indicators. When there is no established benchmark, the national median is used as a basis of comparison.

A **median** is the middle number in a sorted, ascending or descending, list of numbers. For example, if the median total margin is 3 percent, then half of all hospitals have a total margin > 3 percent and half have a total margin < 3 percent. The median is used because there may be outliers in the sequence that could skew the mean of the values. Medians usually change every year.

A **benchmark** is an absolute measure of performance that does not change over time and is independent of how other hospitals performed.

Note: Benchmarks are a key component of many performance measurement systems because they help to identify good financial performance and provide specific targets for improvement. CAH Chief Executive Officers (CEOs) and Chief Financial Officers (CFOs) are most knowledgeable about the financial management of CAHs, so in 2006, we began surveying CEOs and CFOs. In April 2007, we used their feedback to help create benchmarks for five of the indicators. This method was repeated in 2011 to create benchmarks for seven additional indicators. The intent of the benchmarks is to provide a relevant and useful basis to assess the financial performance and condition of CAHs. Medians change over time, but benchmarks provide a constant basis on which to judge financial performance and condition.

To download the list of below benchmark hospitals, **you must do so before changing the state, year, and selected indicators.**

 Below Benchmark Hospitals

Click the below benchmark hospitals button found at the far bottom right of the report.

The file will contain hospitals within the previously selected criteria, their city, state, indicators, benchmarks, each hospital’s value, and the ordinality which shows if the hospital’s value is higher or lower than the benchmark.



AutoSave Off Hospitals below benchmark 2021-11-29 02_35_35

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	A	B	C	D	E	F	G	H	I
1	name	city	state	indicator	benchmark	hospital_v	ordinality		
2	Hospital 0	City 01013	01	totmarg	3	-0.35269	higher		
3	Hospital 0	City 01009	01	totmarg	3	0.9218	higher		
4	Hospital 0	City 01012	01	totmarg	3	-0.89453	higher		
5	Hospital 0	City 01015	01	totmarg	3	1.753168	higher		
6	Hospital 0	City 01019	01	totmarg	3	-14.5871	higher		
7	Hospital 0	City 01021	01	totmarg	3	2.991739	higher		
8	Hospital 0	City 01020	01	totmarg	3	0.612228	higher		
9	Hospital 0	City 01011	01	cashfloma	5	2.977375	higher		
10	Hospital 0	City 01013	01	cashfloma	5	2.63815	higher		

8) PRINTING THE FINANCIAL INDICATORS TOOL

To print the page, **you must do so before changing the state, year, and selected indicators.**

1. To print, click the save image button found at the bottom middle of the report.
2. Once you click save image, a downloadable file will appear, which you can then click to print.

 Save Image

9) TO CHANGE THE YEAR, STATE, OR DISPLAYED INDICATORS, RETURN TO THE HOSPITAL SELECTION SCREEN

To change your selected financial indicator, click report settings found at the bottom of screen. Follow steps three and four again.



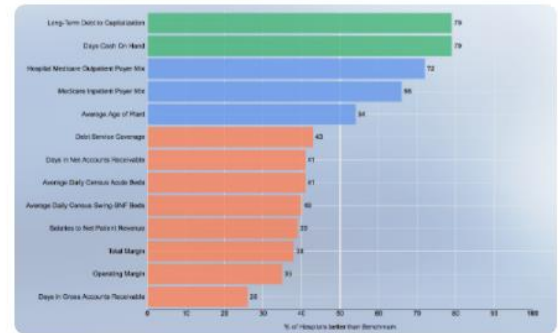
FINANCIAL INDICATORS CHART

1) SELECT THE FINANCIAL INDICATORS CHART TOOL

Another feature of CAHMPAS is the Financial Indicators Chart Tool. The Financial Indicators Chart Tool shows a state's financial indicators in comparison to national benchmarks.

Select Financial Indicators Chart Tool.

Financial Indicators Chart



What are my state's financial indicators?

[Financial Indicators Chart](#)

2) FINANCIAL INDICATORS CHART: OVERVIEW

The Financial Indicators Chart Tool shows results for a state's hospitals compared national medians using the following financial indicators:

- 1-Year change in operating expenses
- 1-Year change in operating revenue
- 3-Year change in operating expenses
- 3-Year change in operating revenue
- Average Age of Plant
- Average Daily Census Acute Beds
- Average Daily Census Swing-SNF Beds
- Average Salary per FTE
- Cash Flow Margin
- Current Ratio
- Days Cash on Hand
- Days Gross Revenue in Accounts Receivable
- Days Net Revenue in Accounts Receivable
- Debt Service Coverage
- Equity Financing
- FTEs per Adjusted Occupied Bed
- Hospital Medicare Outpatient Cost to Charge
- Hospital Medicare Outpatient Payer Mix
- Long-Term Debt to Capitalization
- Medicaid payer mix
- Medicare Acute Inpatient Cost Per Day
- Medicare Inpatient Payer Mix
- Operating Margin
- Outpatient Revenues to Total Revenues
- Patient Deductions
- Return on Equity
- Salaries to Net Patient Revenue
- Total Margin
- Uncompensated care

The results for the selected state and selected year are shown in comparison to national medians.



3) SELECT YOUR STATE AND YEAR

When you open the table, the state of Alaska automatically populates. To change states, you will need to select a state. To change the state, go to the **Report Settings** button at the bottom of the table.

Select Report Settings

 Report Settings

Displayed Indicators

- | | |
|--|---|
| <input checked="" type="checkbox"/> Operating Margin | <input checked="" type="checkbox"/> Cash flow margin |
| <input checked="" type="checkbox"/> Total Margin | <input checked="" type="checkbox"/> Return on equity |
| <input checked="" type="checkbox"/> Salaries to Net Patient Revenue | <input checked="" type="checkbox"/> Current ratio |
| <input checked="" type="checkbox"/> Days Cash On Hand | <input checked="" type="checkbox"/> Medicare acute inpatient cost per day |
| <input checked="" type="checkbox"/> Days in Net Accounts Receivable | <input checked="" type="checkbox"/> Outpatient revenue to total revenue |
| <input checked="" type="checkbox"/> Debt Service Coverage | <input checked="" type="checkbox"/> Hospital Medicare outpatient cost to charge |
| <input checked="" type="checkbox"/> Average Age of Plant | <input checked="" type="checkbox"/> FTEs per adjusted occupied bed |
| <input checked="" type="checkbox"/> Medicare Inpatient Payer Mix | <input checked="" type="checkbox"/> Patient deductions |
| <input checked="" type="checkbox"/> Hospital Medicare Outpatient Payer Mix | <input checked="" type="checkbox"/> Uncompensated care |
| <input checked="" type="checkbox"/> Long-Term Debt to Capitalization | <input checked="" type="checkbox"/> Medicaid payer mix |
| <input checked="" type="checkbox"/> Days in Gross Accounts Receivable | <input checked="" type="checkbox"/> Equity Financing |
| <input checked="" type="checkbox"/> Average Daily Census Swing-SNF Beds | <input checked="" type="checkbox"/> Plant Age |
| <input checked="" type="checkbox"/> Average Daily Census Acute Beds | <input checked="" type="checkbox"/> Average Salary per FTE |
| <input checked="" type="checkbox"/> Market Population | <input checked="" type="checkbox"/> Market Poverty Rate |
| <input checked="" type="checkbox"/> Market Income | <input checked="" type="checkbox"/> Distance to Larger Hospital |
| <input checked="" type="checkbox"/> 1-Year change in operating expenses | <input checked="" type="checkbox"/> Market Share |
| <input checked="" type="checkbox"/> 1-Year change in operating revenue | <input checked="" type="checkbox"/> 3-Year change in operating expenses |
| | <input checked="" type="checkbox"/> 3-Year change in operating revenue |

Year

2019 ▼

State

Alaska ▼

Create Report

4) SET YOUR CRITERIA

You can now set the criteria you would like to view from the pop-up menu. All financial indicators will automatically be selected with a blue check mark.

- 1) Select your state
- 2) Select the year of data
- 3) Select the indicators you would like on your report. (If the box is checked, the financial indicator will be displayed in the report). If you would like certain indicators not to show, uncheck the box next to the indicator.)
- 4) Lastly, click **create report** at the bottom of the pop-up.



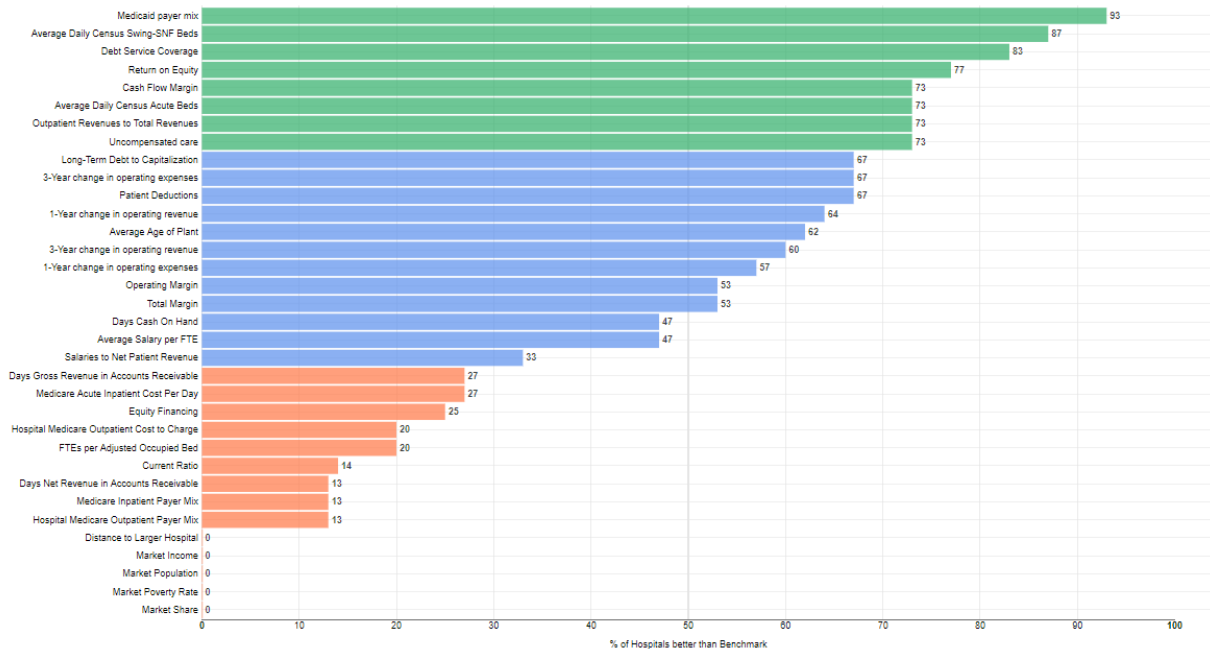
5) OVERVIEW

Once you select create report, you will see the chart with financial indicators for the state you selected.

To the left of the chart, you will see all selected indicators listed on the y axis. On the bottom x-axis you will see the percentage of hospitals for the selected state that are better than the benchmark.

01: Performance on Select Financial Indicators Compared to National Benchmarks/Medians 2019

Total number of hospitals: 15



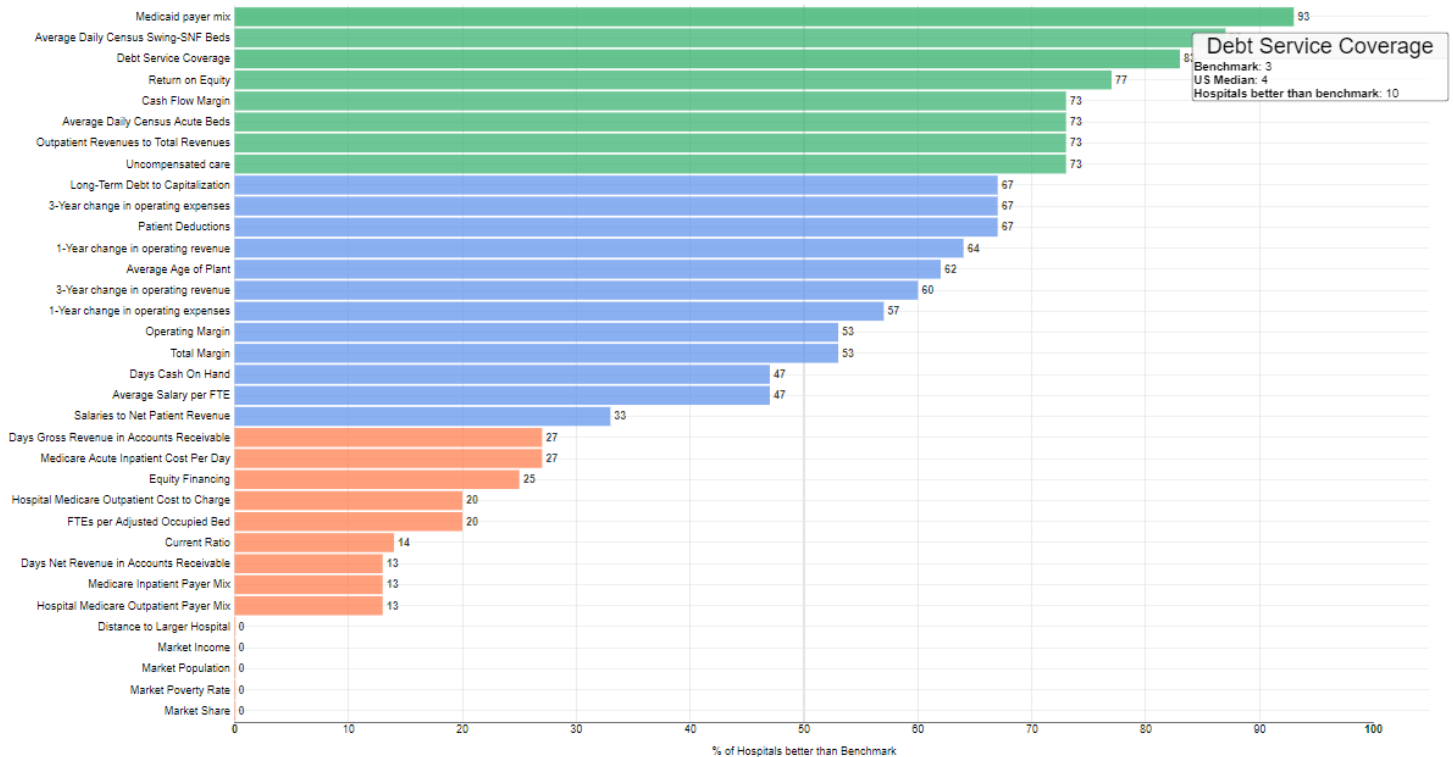
6) UNDERSTANDING YOUR INDICATOR

To see how each benchmark compares other hospitals and national medians, you can hover over the selected indicator. Below, you can see that the debt service coverage benchmark is 3, the US median is 4, and the hospitals that are better in the benchmark are 10.



01: Performance on Select Financial Indicators Compared to National Benchmarks/Medians 2019

Total number of hospitals: 15



7) DOWNLOADING LIST OF BELOW BENCHMARK HOSPITALS

Another feature of the financial indicators chart tool is the ability to download a list of “below benchmark hospitals” – hospitals for each state that have indicators that are below benchmark. Most benchmarks have been established by the Flex Monitoring Team to provide reference point as a basis of comparison among the financial indicators. When there is no established benchmark, the national median is used as a basis of comparison.


A **median** is the middle number in a sorted, ascending or descending, list of numbers. For example, if the median total margin is 3 percent, then half of all hospitals have a total margin > 3 percent and half have a total margin < 3 percent. The median is used because there may be outliers in the sequence that could skew the mean of the values. Medians usually change every year.

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To download the list of below benchmark hospitals, **you must do so before changing the year and selected indicators.**

 Below Benchmark Hospitals

Click the below benchmark hospitals button found at the far bottom right of the report.

The file will contain hospitals within the previously selected criteria, their city, your state, indicators, benchmarks, each hospital's value, and the ordinality which shows if the hospital's value is higher or lower than the benchmark.

8) PRINTING THE FINANCIAL INDICATORS TOOL

 Save Image

To print the page, **you must do so before changing the state, year, and selected indicators.**

1. To print, click the save image button found at the bottom middle of the report.
2. Once you click save image, a downloadable file will appear, which you can then click to print.

9) TO CHANGE THE STATE, YEAR, OR DISPLAYED INDICATORS, RETURN TO THE HOSPITAL SELECTION SCREEN

To change your selected financial indicator, click report settings found at the bottom of screen. Follow steps three and four again.

INDICATORS REPORT

1) SELECT THE INDICATORS REPORT TOOL

Another feature of CAHMPAS is the Indicators Report Tool. The Indicators Report Tool shows the metrics of an individual hospital's financial indicators in comparison to other hospitals.

Select Indicators Report Tool.



2) INDICATORS REPORT: OVERVIEW

The indicators report shows results for an individual hospital compared to other hospitals at both the state and



national level over time with the following financial indicators:

1. Total margin
2. Cash flow margin
3. Return on equity
4. Operating margin
5. Current ratio
6. Days cash on hand
7. Days net revenue in accounts receivable
8. Equity financing
9. Debt service coverage
10. Long-term debt to capitalization
11. Outpatient revenues to total revenues
12. Patient deductions
13. Medicare inpatient payer mix
14. Hospital Medicare outpatient payer mix
15. Hospital Medicare outpatient cost to charge
16. Medicare acute inpatient cost per day
17. Salaries to net patient revenue
18. Average age of plant
19. FTEs per adjusted occupied bed
20. Average salary per FTE
21. Average daily census swing-SNF beds
22. Average daily census acute beds
23. Days gross revenue in accounts receivable
24. Uncompensated care
25. Medicaid payer mix
26. 1-year change in operating expenses
27. 1-year change in operating revenue
28. 3-year change in operating expenses
29. 3-year change in operating revenue

The results over time for the selected indicator are shown in comparison to national and state medians.

3) SELECT YOUR HOSPITAL

First, you will need to select the hospital you would like to view from the potential options by clicking view dashboard.



Choose a hospital

Show entries

Search:



CAHID	Name	City	CMS ID	Action
20001	Hospital 20001	City 20001	20001	View Dashboard
20002	Hospital 20002	City 20002	20002	View Dashboard
20003	Hospital 20003	City 20003	20003	View Dashboard
20004	Hospital 20004	City 20004	20004	View Dashboard



4) SET YOUR CRITERIA

You will now need to select your specific financial indicator to look at the results and the associated line graph.

Financial Indicator
Total Margin
Cash Flow Margin
Return on Equity
Operating Margin
Current Ratio
Days Cash On Hand
Days Net Revenue in Accounts Receivable
Equity Financing
Debt Service Coverage
Long-Term Debt to Capitalization
Outpatient Revenues to Total Revenues
Patient Deductions
Medicare Inpatient Payer Mix
Hospital Medicare Outpatient Payer Mix
Hospital Medicare Outpatient Cost to Charge

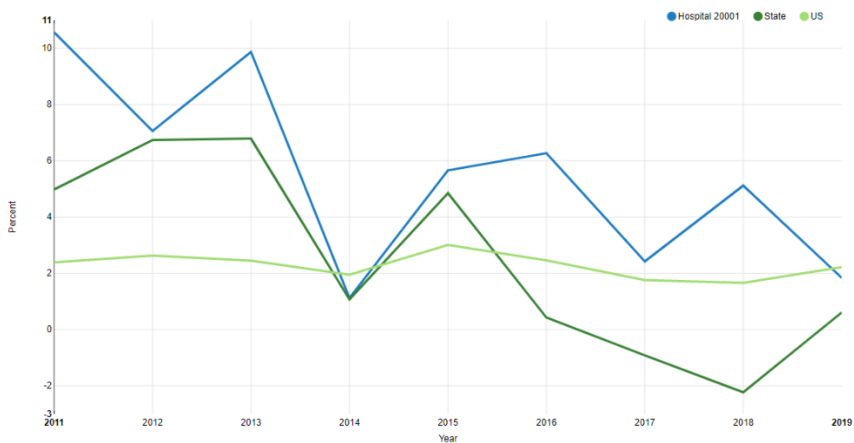
Total Margin  

Total Margin

Recent Results for Hospital 20001

In 2019, Hospital 20001's Total Margin was 1.84 percent, the national median was 2.22 percent, and the median was 0.61 percent.

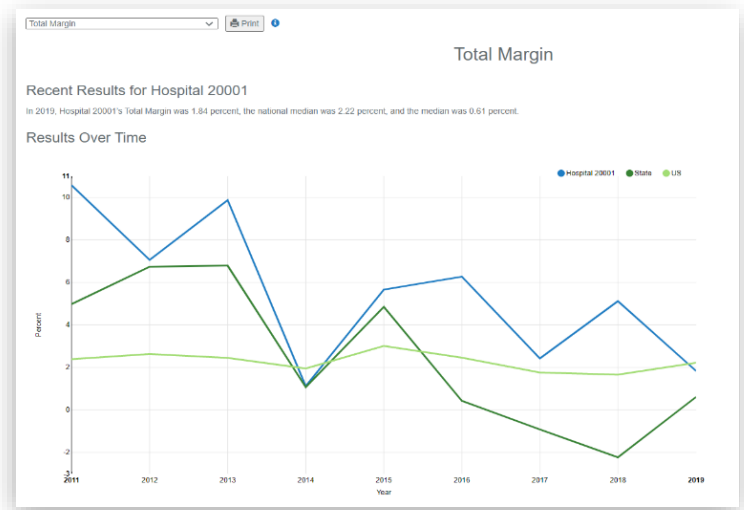
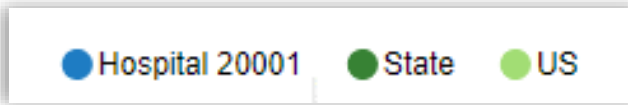
Results Over Time





5) INDICATOR GRAPH: OVERVIEW

The graph to your right depicts how indicator charts in CAHMPAS may look, with your hospital selected. Utilizing the key at the top right corner of your graph (and enlarged below), you will notice that the blue line represents a single selected hospital, the dark green line represents the state median, and the light green line represents the US median. Note: Colors may vary.



6) DATA TABLE

Below the graph, you will find a table that contains the indicator data by year, also represented in the line graph.

Total Margin (percent)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Hospital 20001	10.57	7.06	9.87	1.12	5.66	6.27	2.42	5.12	1.84
State	4.98	6.74	6.79	1.07	4.85	0.43	-0.92	-2.23	0.61
US	2.39	2.63	2.45	1.95	3.01	2.46	1.76	1.66	2.22

7) UNDERSTANDING YOUR INDICATOR

Underneath the graph and table, you will see the indicator definition, the location of the financial indicator components on the Medicare cost report accounts worksheet, an interpretation explaining how to use the indicator, and information about the quality of the data that may affect whether or not values are missing in the chart and table. The image below shows each of these for the Total Margin indicator.

Definition

Net income / Total revenues

Medicare Cost Report Accounts

Worksheet G-3, line 29 / Worksheet G-3, lines 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/Exclusion Criteria

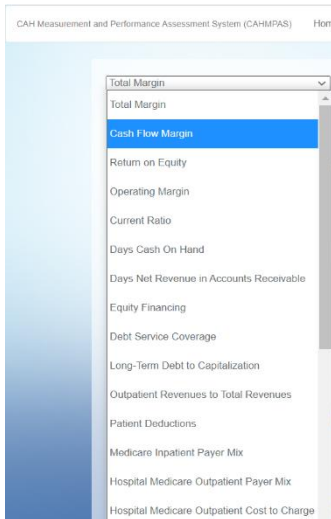
For hospitals with total revenues of zero or with total margin values greater than or less than 100%/-100%, indicator values were set to missing.

8) PRINT & ALTER YOUR INDICATOR FROM THE GRAPH

To print the page, **you must do so before changing the indicator**. To print, you can click the “print” button to the right of the drop-down menu.



To change your selected financial indicator, click the drop-down arrow on the left side of the screen and select the new financial indicator you would like to view, without returning to any previous screens.



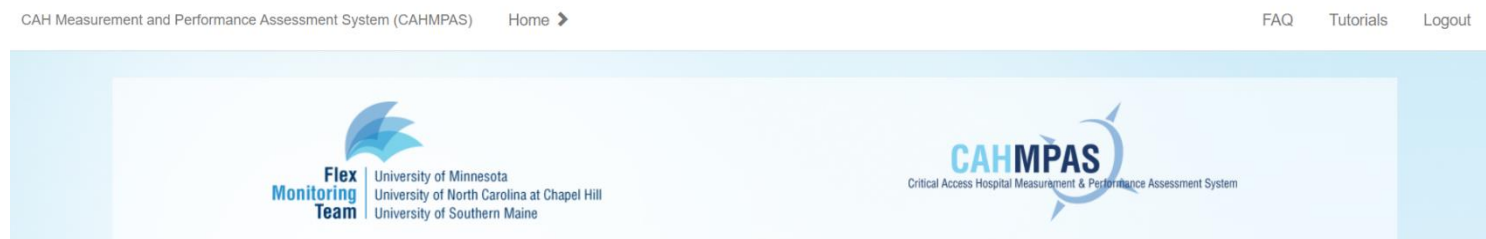
9) TO VIEW A NEW HOSPITAL, RETURN TO THE HOSPITAL SELECTION SCREEN

Click the back space arrow on the top of your browser to select a new hospital option to view. Once you have found the hospital you would like to see, select view dashboard and follow steps three to eight again.



Other questions?

If you have other questions about CAHMPAS refer to the navigation bar where we have links to other resources and frequently asked questions (FAQ)



This study was conducted by the Flex Monitoring Team with funding from the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS), under PHS Grant No. U27RH01080. The information, conclusions, and opinions expressed in this document are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.