
Healthcare Finance and Benchmarking

Alliance of Cardiovascular Professionals

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About the Presenter

Steven Berger is President of Healthcare Insights, LLC, which specializes in the teaching and consulting of healthcare general and financial management issues. Additionally, the company has developed INSIGHTS, decision support management accountability software products. Prior to his role at Healthcare Insights, Mr. Berger was Vice President, Finance for seven years at 250 bed Highland Park Hospital in suburban Chicago, Illinois. Before Highland Park Hospital and since 1978, he has been a hospital or health system finance officer in New York, New Jersey and Missouri.

Mr. Berger has almost 30 years of healthcare financial management experience. He holds a Bachelors of Science degree in History and a Master of Science in Accounting from the State University of New York at Binghamton. He is a CPA, and a Fellow of the Healthcare Financial Management Association (HFMA) where he served as President of the First Illinois Chapter and Regional Executive for Region 7. Mr. Berger has also served a three year term on HFMA's Board of Examiners. He is also a Diplomate of the American College of Healthcare Executives (CHE).

In addition, Mr. Berger has presented many healthcare finance related seminars throughout the United States and Canada including 3 two-day classes *Fundamentals of Healthcare Financial Management*, *Turning Data into Useful Information* and *Hospital Financial Management for Non-Financial Managers*. He has also co-written articles on healthcare information systems that were published in *Healthcare Financial Management* magazine as well as an August 2004 article on cost management issues, an April 2002 column on the value of maintaining management accountability and a February 2000 commentary in *Modern Healthcare* on the lack of training in the healthcare industry.

Mr. Berger is the author of the 344 page book "*Fundamentals of Healthcare Financial Management*," published in 1999 by McGraw-Hill and the HFMA. This book was written from a practitioners point of view and is a distillation of Mr. Berger's many years on the inside of healthcare institutions. The second edition was published in February, 2002 by Jossey-Bass and is available at www.amazon.com.

Additionally, Mr. Berger has co-authored the 400 page textbook, *HFMA's Introduction to Hospital Accounting, 4th Edition*, published in the summer of 2002 by Kendall Hunt and is available at www.hfma.org. Mr. Berger also wrote the 2003 book, "*Understanding Nonprofit Financial Statements, Second Edition*," published by BoardSource, specifically for Boards and Administrators. It is available at www.boardsource.org. Finally, Mr. Berger's 2005 book "*The Power of Financial and Clinical Metrics Achieving Superior Results in Your Hospital*" is available at www.ache.org



What / Who is the ACVP?

- **The Alliance of Cardiovascular Professionals (ACVP) is a professional association:**
 - Connecting over 3000 professionals involved in all levels of cardiovascular service (administration, management, nursing and technology) and
 - Involved in all cardiovascular specialties (invasive, noninvasive, echo, cardiopulmonary).
- **Mission Statement**
 - To meet the needs of all cardiovascular and pulmonary providers
 - To promulgate standards
 - To promote recognition of the cardiovascular profession.

Class Objectives

- This ninety minute class has been designed to encourage members of the ACVP to adopt the use of benchmarking on both the financial and clinical side of their business. It
 - describes the many and varied types of benchmarking systems available to healthcare providers, particularly hospitals,
 - debunks the negative image that abounds in some circles surrounding the use and quality of benchmarking products, and
 - shows how to the use benchmarking outcomes to improve operations.
- The class is designed to:
 - Define the importance and value of benchmarking
 - Analyze the kinds of benchmarks that exist in healthcare
 - Examine how benchmark data can be used to improve operations, both financially and clinically
 - Reviewing case studies attesting to improved operations

*Benchmarking Provides Extreme
Information for Achieving
Superior Performance and Results*

What is Benchmarking?

“A standard of excellence, achievement, etc. against which similar things must be measured or judged.”

*Source: Random House Unabridged
Dictionary, 2nd Edition, 1993*

Why is Benchmarking Important?

- It helps you to think “outside the box”
- It makes you more aware of what others are doing
- It can potentially show you:
 - where you are, and
 - where you need to go

Non-Healthcare Industry Benchmarks

- Benchmarking came to the healthcare industry from other industries
- Every industry has its own series of benchmarks
- Let's take a quick look at some of the financial benchmarks used in Fortune 500 companies
 - Change in revenues
 - Revenues per employee
 - Revenues per dollar of equity
 - Total return to investors
 - Return on
 - » revenues,
 - » assets,
 - » equity

What Kinds of Healthcare Benchmarks Exist?

*Benchmarks exist within all phases of the industry -
Hospitals, Physician Practices, Skilled Nursing Facilities,
Home Health Agencies*

» Financial

- ◆ Ratios
- ◆ Expense/Revenues Per Units
- ◆ Volumes

» Clinical

- ◆ Quality
- ◆ Productivity
- ◆ Severity / Acuity
- ◆ Patient Satisfaction

Available Benchmarks

- Hospitals
 - Length of Stay:
 - » by payer
 - » by facility size
 - » by DRG
 - » by capitation / non-capitation
 - Outcomes
 - Patient Throughput
- Physician Practices
 - Per member per month (PMPM) data
 - » by State
 - » by practice type
 - » by practice size
 - Medical Group Management Association benchmarks
 - Solucient 100 Top Hospitals®: Cardiovascular Results Report

AHRQ Puts Latest Hospital Care Data on the Web

- The U.S. Agency for Healthcare Research and Quality (AHRQ) announced today that it has added data for 2000 -- the most current information on hospital stays -- to its HCUPnet.
- The Web-based HCUPnet is a *free service* that enables users to identify, track, analyze, and compare statistics on the inpatient care of Americans.
- Users can specify regions of the country and the nation as a whole, and can target individual states when tracking information.
- HCUPnet also contains national trend data for the period of 1993-2000, which revealed that patients in 2000 spent nearly 20% less time in hospitals on average, than patients in 1993.
- The trend data also show how the number of patients treated for specific conditions has changed.
- To access HCUPnet go to <<http://www.ahrq.gov/data/hcup//hcupnet.htm>>.

July 2, 2002, AHA NEWS NOW,
www.ahanews.com

N.Y. Employers Go Online with Hospital Data

- Nearly 300 hospitals in New York have been rated on the quality of their care in 25 inpatient procedures, including C-sections, heart bypass surgeries and hip replacements, by the Alliance for Quality Health Care, an organization sponsored by 3,600 employers and 31 insurance companies.
- The report contains hospital-specific, risk-adjusted outcomes data for 2001 and is available online at www.myHealthFinder.com, *since November 25, 2002*
- Hospitals received up to three stars for their performance in each procedure based on a comparison of their performance with the statewide average for the procedure; hospitals were not rated on overall quality.
- The Greater New York Hospital Association said the study joins a burgeoning collection of employer-sponsored quality report cards and standards.
- "As long as consumers understand there are limitations to the data, and there are a lot of (such reports) out there and none of them should be used as a definitive source, consumers can use this to begin to ask questions," a GNYHA spokeswoman said.

New Medicare Bill Provision Will Require Hospital Quality Data by Spring 2004 to Receive Full Inpatient Update

- Hospitals may be required to submit data for each of the Quality Initiative's 10 measures of care as early as April or May of 2004 to receive a full market basket update for Medicare inpatient PPS payments in fiscal year 2005
- The hospital payment provision was included in the Medicare Prescription Drug, Improvement and Modernization Act of 2003, which President Bush signed into law Dec. 8; however, the legislation does not specify a deadline for transmitting data.
- The CMS spokesperson indicated that the agency is still working to map out the details of the requirement, including a more precise timeline, and plans to issue formal clarification in January.
- In the meantime, hospitals are encouraged to pledge their participation in the initiative as soon as possible so that they are ready to begin transmitting data by the second quarter of calendar year 2004.
- While hospitals must transmit data for all 10 measures of care to receive the full update, hospitals' information will not be shared publicly unless data is available for 25 or more cases per year.
- For more information on how to enroll in the Quality Initiative, visit <http://www.aha.org> and click on the "Quality Initiative" logo.

National Sources of Comparative Data

American Hospital Association

One North Franklin
Chicago, IL 60606
312-422-3000

Publishes *Hospital Statistics*, which presents nationwide data on cost, utilization and staffing and *AHA Guide to the Health Care Field*, which presents operational information on each US hospital.

Ingenix/Center for Health Industry Performance Studies (CHIPS)

1550 Old Henderson Road
Suite S-277
Columbus, OH 43220-3626
614-457-1777

Comparative data on profitability, cost, productivity, and efficiency indicators for 69 hospital departments, as well as financial indicators for entire facility, against various peer groups and best practice hospitals.

Premier, Inc.

4501 Charlotte Park Drive, PO Box 668800
Charlotte, NC 28266-8800
704-529-3300

Offers Operation Outlook, database which profiles cost and productivity on a departmental basis, as well as extensive financial indicators for entire hospital; data accessed through interactive software program

Solucient

HCIA

300 East Lombard Street
Baltimore, MD 21202
410-332-7498

Publishes *The Comparative Performance of U.S. Hospitals: The Sourcebook*, which contains nationwide and state-by-state benchmarks for operational and financial indicators. Also *The Guide to the Hospital Industry*, which profiles each hospital's operations and performance on cost effectiveness and profitability

HBSI

5215 North O'Conner Boulevard
Irving, TX 75014
214-830-0000

Provides departmental benchmark information by electronically collecting data on cost and key performance information, payer mix, physician utilization, reimbursement and consumption of resources, all of which are used to identify best practices

MECON, Inc

200 Porter Drive, Suite 100
San Ramon, CA 94583
800-356-3266

Provides departmental benchmark information by electronically collecting data on cost and key performance information, payer mix, physician utilization, reimbursement and consumption of resources, all of which are used to identify best practices

Other Benchmarking Sources

- State Agencies or State Associations
 - Demographics
 - Market Share - you versus your competition
 - Physician usage
 - Clinical Outcomes
 - » for example, in Illinois, the Illinois Hospital Association (IHA) provides comparative clinical data to subscribers
- Dun and Bradstreet - Business Scope
 - Financial Ratios - facility vs. industry

Provocateur Questions

- Do you trust in benchmark data?
- Do you believe in benchmark data?
- Can we really compare revenues, costs or volume amongst different hospitals?
- Why do different benchmark systems contradict each others?
- Do you believe you can use benchmark data to improve operations?

Why Trust Benchmark Data?

- Who has anything better?
- What would be better?

But seriously,

- » Isn't it good to be aware of “best practices” within whatever measure is being analyzed?
- » Even if you don't trust it, if you analyze your data against more than one benchmark system's output, wouldn't this show you a direction you may need to take?

Is There Really Any Comparability Among Data?

- Is there any comparability among provider operating systems upon which to benchmark?
 - Maybe!?!
 - » Maybe not. But if you decide to use it, it is critical
 - ◆ that you understand the methodologies being used by the benchmarking services that you are using.
 - ◆ to determine if the methodology does not meet your needs, or...
 - ◆ to know if the methodology will not work with your practices. If it does not, then do not participate
 - Still, there are many benchmarking products that try quite hard to offer comparability amongst the data by creating *precise* and *detailed* **definitions** for reporting the data.

Why Do Benchmark Systems Differ?

- It could be the ... sample size! (See the following sheet)
- In addition, of course, it could be the:
 - Methodology or
 - Composition of sample

HFMA Knowledge Network®

Key Hospital Financial Statistics and Ratio Medians - November 2004

Measure	S & P (1)	Fitch (2)	Solucient (3)	Ingenix/ CHIPS (4)	Premier, Inc (5)	Data Advantage	
	All Ratings	All Ratings	HBSI, HCIA			Corp (6)	
Sample size (n)	577	215	779	1,753	380	4,424	
Average length of stay (%)	4.60	4.70	4.73	5.01	4.68	4.80	
Maintained bed occupancy (%)	64.30	N/A	67.33	51.10	67.30	63.07	
Net patient revenue (\$000)	200,846	299,791	164,956	47,007	47,365	95,072	
Operating margin (%)	1.90	1.60	4.10	0.69	2.54	(0.58)	
Excess margin (5)	2.90	2.60	4.80	5.11	4.20	5.70	
Debt service coverage (x)	2.90	2.80	4.51	2.94	N/A	N/A	
Current ratio (x)	1.94	N/A	2.12	1.88	2.47	1.83	
Cash on hand (days)	139.70	149.60	86.09	64.10	N/A	47.07*	
Cushion ratio (%)	10.60	10.60	N/A	8.10	N/A	N/A	
Accounts receivable (days)	54.50	54.20	53.43	59.30	54.81	58.81	
Average payment period (days)	59.40	64.30	46.35	48.10	N/A	65.43*	
Average age of plant (years)	9.50	9.50	N/A	9.80	N/A	8.78*	
Debt-to-capitalization (%)	39.30	44.20	45.38	27.20	44.00	32.08	
Capital expense (%)	7.40	N/A	6.69	6.40	6.90	6.64*	

**Data for sample size of 699*

1. *Standard & Poor's Ratings Group, 2004 Median Healthcare Ratios*
2. *FITCH, 2004 Median Ratios for Nonprofit Hospitals and Health Care Systems*
3. *2004 Solucient, LLC ACTION O-I Program (January – December 2003 median data)*
4. *2004 Ingenix, Inc. Financial Analysis and Strategic Operating Indicators Services and Medicare Cost Reports*
5. *Premier, Inc. Operations Outlook for the Year Ended June 30, 2004*
6. *Copyright 2004 by Data Advantage Corporation*

Calculation Definitions of Financial Ratios

Operating margin (%)	$(\text{Total operating revenues} - \text{Total operating expenses}) / (\text{Total operating revenues}) \times 100$
Excess margin (5)	$(\text{Total operating revenues} + \text{Non-operating revenues} - \text{Total operating expenses}) / (\text{Total operating revenues} + \text{Non-operating revenues}) \times 100$
Debt service coverage (x)	$(\text{Excess of Revenues over Expenses} + \text{Deprec} + \text{Interest Exp}) / (\text{Principal} + \text{interest payments})$
Current ratio (x)	$(\text{Current Assets} / \text{Current Liabilities})$
Cash on hand (days)	$((\text{Cash and Cash Equivalents} + \text{Board Designated Funds for Capital}) * 365) / (\text{Total operating expenses} - \text{depreciation and amortization expenses})$
Cushion ratio (%)	$(\text{Cash} + \text{Short Term Investments} + \text{Unrestricted Long Term Inv}) / (\text{Principal} + \text{interest payments})$
Accounts receivable (days)	$(\text{Net patient accounts receivable} \times 365) / \text{net patient revenues}$
Average payment period (days)	$(\text{Current Liabilities}) / ((\text{Total Expenses} - \text{Depreciation}) / 365)$
Average age of plant (years)	$(\text{Accumulated Depreciation}) / (\text{Depreciation Expense})$
Debt-to-capitalization (%)	$(\text{Long term debt}) / (\text{Long term debt} + \text{Net Assets}) \times 100$
Capital expense (%)	$(\text{Interest Expense} + \text{Depreciation Expense}) / (\text{Total Expenses}) \times 100$

Can Benchmark Data Really be Used to Improve Operations ?

- Yes, it can if you have the gumption to operationalize what you learn! **For example**, let's say you participate in a *benchmarking study of Staffing* and learn that your organization is 20, 30, 40% higher than the benchmarking sample's median. (Ratio is Salary per Adjusted Patient Day)
- *What could you do?*
- Getting behind the numbers might yield many explanations why your organization is more costly.
- These conclusions might include some of the following:

Strategies to Reduce Costs - Based on Conclusions from Benchmarking Studies

- Sample strategies may include:
 - Reduce management levels to 4 or less
 - Reduce by 50% the number of department specific forms (OB, Critical Care)
 - Improve training to reduce rework and interruptions
 - Automate entire medical record
 - Reduce or eliminate verbal change of shift report
 - Have 99% of admission nursing assessment completed in pre-admission testing
 - Change to a 60/40 ratio of full-time to part-time workers for flexibility
 - Change overall skill mix goal to 50%RN / 50% other
 - Streamline nursing documentation
 - Eliminate duplicate chart forms, e.g. one vital sign record for hospital

Another Possibility for FTE Benchmark

Or...

You could just decide that this particular
benchmark / ratio stinks and ignore it!

Another Benchmarking Tool that Can Be Used to Improve Operations



Brilliant Hospital Balanced Scorecard

Financial		2.15	Needs Improvement
Profitability	3.60	Good	
Capital Structure	0.83	Unsatisfactory	
Liquidity	0.66	Unsatisfactory	
Asset Efficiency	3.50	Good	
Operating		2.90	Needs Improvement
Volume	2.50	Needs Improvement	
Price	3.70	Good	
Efficiency	2.50	Needs Improvement	
Clinical		3.00	Good
Clinical Outcomes	3.50	Good	
Major Process Efficiency	2.50	Needs Improvement	
Patient Satisfaction	3.00	Good	
Quality Survey		3.46	Good
Leadership	3.90	Good	
Strategic Planning	3.45	Good	

Brilliant Overall Performance	Score	Weight	Weighted Score
Financial	2.15	25.00	0.537
Operating	2.90	25.00	0.725
Quality Survey	3.46	25.00	0.865
Clinical	3.00	25.00	0.750
Total Score			2.877

Needs Improvement

Available Benchmarking Outcomes Through Balanced Scorecard

- Timeliness of reporting
 - Automated metrics development
 - Delivered to the user's desktop
- Consistency of reporting
 - Organization level
 - Division level
 - Department level
- Reflects budgeted goals as well as peer group results
- Distance between the median and the actual result is easy to judge

Can BM Data Really be Used to Improve Operations ?

- Case Study # 1 - Accounts Payable & Purchasing
 - *The Paydex Ratio*
- Case Study # 2 - Overall Operations
 - *The HCIA / Mercer “100 Top Hospitals” Benchmark Study*

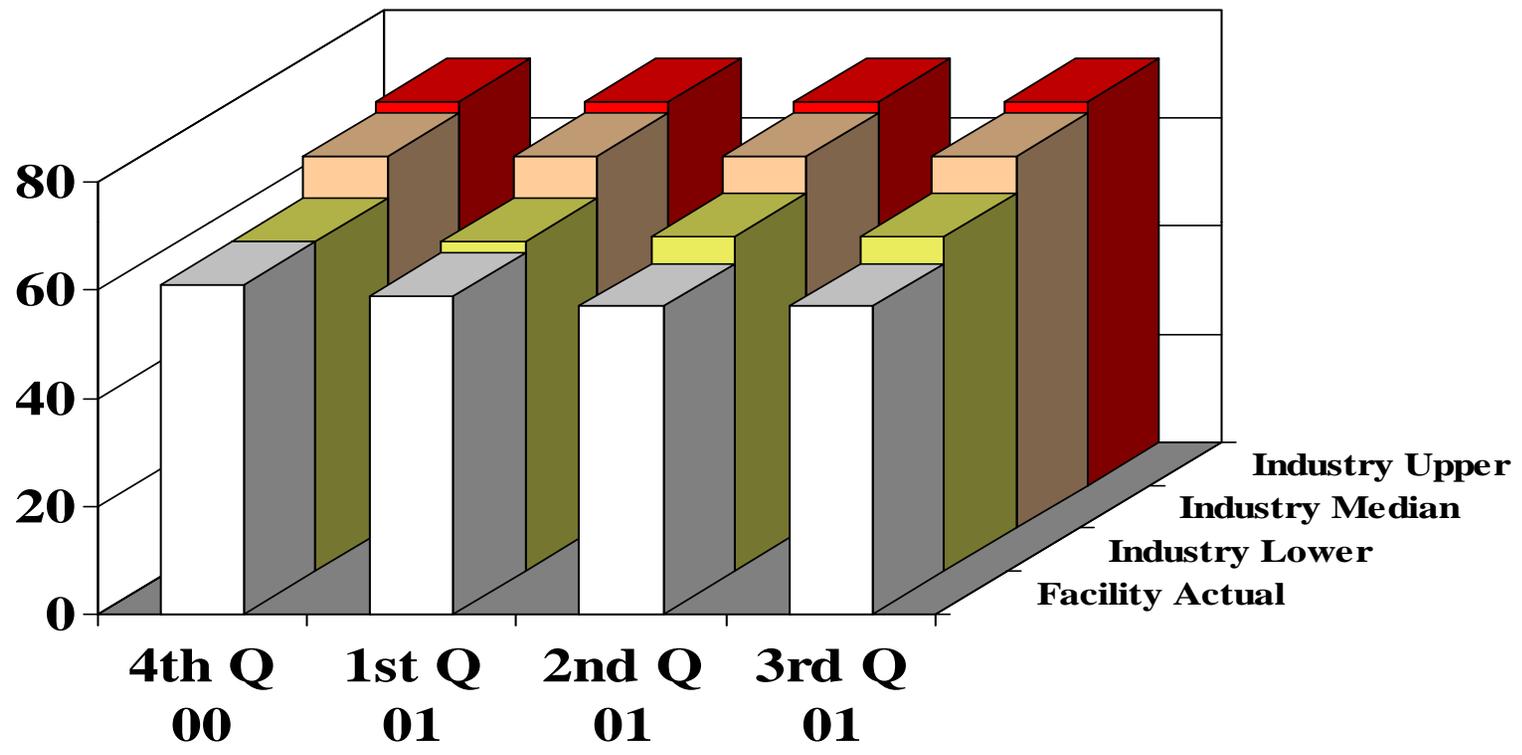
Case Study # 1 - The Paydex Ratio

- Every year, over 6,000 companies submit tapes of their accounts receivable experience to D & B.
- These tapes provide a flow of payment experiences showing how companies pay their bills.
- Paydex is a numerical value assigned by Dun and Bradstreet:
 - based upon payments in the D & B file for a given business.
 - Scores are updated daily
 - Scores are also based upon as many as 875 trade experiences for a single business.
 - Paydex is tracked over a full 2-year period along with Industry Norm scores for comparison and trend evaluation.

Why is Paydex Ratio Important?

- Paydex affects external credit terms
 - Paydex is one of the important components that D & B uses to establish credit ratings
 - The D & B credit rating may impact the credit granting terms of facility vendors
 - The better the D & B rating, the more favorable will be the credit terms
- The Paydex rating can help to highlight operational inefficiencies, if used properly

Ridgeland Heights Medical Center Paydex Trend



Current Period Paydex	59
Prior Year Paydex	62

Paydex Legend Key

PAYDEX	PAYMENT
100	Anticipate
90	Discount
80	Prompt
70	Slow to 15
50	Slow to 30
40	Slow to 60
30	Slow to 90
20	Slow to 120
UN	Unavailable

Payment experiences reflect how bills are met in relation to the terms granted.

Proposition

- Facility is at Paydex score of 59.
- Industry norm is 80.

What would you do to improve this?

Identify Problems / Create Solutions

<u>Problem</u>	<u>Responsible Party</u>
• Payment made within terms	Hospital
• Processing of capital payments	Hospital
• Payment of IS related items	Hospital
• Invoices sent directly to user department, not A/P	Hospital
• Departments ordering directly without a PO	Hospital
• Trials for videos and books - no PO	Hospital
• Handling of magazine subscriptions	Hospital / Vendor
• Invoicing incorrect corporations	Hospital / Vendor
• No PO on invoice	Hospital / Vendor
• Short pays	Vendor
• Freight charges not agreed to	Vendor
• Shipping errors	Vendor
• Invoicing on back orders	Vendor
• Not receiving statements	Vendor
• Double shipments or invoices	Vendor

Do the Solutions Improve Operations?

- It did at this organization!
- RHMC improved from a Paydex score of 59 to a current score of 75, because this organization took the time to implement many of the solutions it identified as problems.
- By doing so, RHMC improved not only its benchmarked number, but in the process, it dramatically improved its operations.

This could and should be categorized as “better decision making”

Case Study # 2 - Top 100 Hospitals

- Produced by the HCIA Division of Solucient, Inc
 - HCIA is a healthcare information content division that develops and markets clinical and financial decision support systems used by hospitals, integrated delivery systems, and other healthcare providers, employers and drug companies. HCIA's database and products are used to benchmark clinical performance and outcomes, profile best practices and manage the cost and delivery of healthcare
- Originally developed in 1993 to
 - Identify superior management teams using:
 - » Objective statistical data
 - » Public data sources only—open to scrutiny
 - ◆ MedPAR and Medicare cost reports
 - Identify top-performing hospitals:
 - » Quality of care
 - » Efficiency of operations
 - » Sustainability of overall performance
 - Build national hospital performance benchmark database

100 Top Hospitals: Benchmarks for Success - A Balanced Scorecard

- According to Solucient, the Top 100 measures provide the following:
 - Value to industry—overall high performance can be identified and compared using balanced scorecard approach and hard data
 - Proven validity — actionable measures
 - New Basis for Comparisons
 - » Strongest performers are high-frequency winners – 3 times or more
 - » Single-year winners may/may not be signaling true change
 - New Basis for Academic research

Solucient 100 Top Hospitals™— Credible Measure of Performance

- Balanced scorecard approach:
 - Efficiency, reasonable costs and high quality
 - Consistently good, dependable care for community
- Management characteristics—William M. Mercer Study:
 - Clear communication of two goals
 - » Growth
 - » Continuous performance improvement
 - ◆ Improve quality and cut costs simultaneously
- Best performers by business definition
- True practitioners of continuous performance improvement

Solucient 100 Top Hospitals™— Seven Criteria

- Quality
 - Risk-adjusted mortality
 - Risk-adjusted complications
- Financial—Stability And Sustainability
 - Profitability (cash flow margin)
 - Expense per adjusted discharge—
wage and case mix-adjusted
- Efficiency
 - Severity-adjusted Average Length of Stay (ALOS)
 - Productivity (total asset turnover ratio)
- Adjustment to Competition And Environment
 - Proportion of outpatient revenue

Solucient 100 Top Hospitals™ Peer Group Categories

Peer Groups	Number of Benchmarks
Small Hospitals (25–99 Beds)	20
Medium-Sized Hospitals (100-249 Beds)	20
Large Community Hospitals (250+ Beds)	20
Teaching Hospitals (250+ Beds)	25
Major Teaching Hospitals (400+ Beds)	16

2000 National Findings And Trends

- All hospitals saw profitability drop under BBA:
 - Solucient 100 Top Hospitals™
total profit margin = 8.7; peers = 1.8
- Benchmark hospitals treat sicker patients; produce better outcomes:
 - Case mix 14% higher, but 14% better outcomes
- Benchmark hospitals are lower cost by 24%
- Benchmark hospitals are more efficient:
 - Fewer staff, but higher patient volume
 - Twice as profitable
 - Pay staff more than \$2,000 more per FTE
 - Higher use of special care units

Solucient 100 Top Hospitals™— Academic Research

- Yale study—Health Affairs:
 - “Best” clinical care or “best” financial performance?
 - Solucient 100 Top Hospitals™ equal or better for AMI outcomes
 - » Equal in 30-day mortality, beta blockers
 - » Slightly greater use of aspirin
 - » Cost and LOS significantly lower
 - ◆ Range \$1,014 to \$1,855 per case
- University of Michigan School of Public Health:
 - Journal of Healthcare Management Jan 2002
 - » Balanced scorecard of hard, “actionable” measures
 - » Movement decile-to-decile, not quartile to quartile, yr over yr
 - Quality Management in Healthcare Jan 2002
 - » JCAHO Accreditation versus Hard Outcome Measures
 - » Accreditation often same: hosps with high mort, complex as low

Impact on Winning Hospitals

- Heavy media coverage:
 - Reached over 26M consumers
 - Modern Healthcare Supplement on Solucient 100 Top Hospitals™
 - Business and Health—April, 2001
 - Health Management Technology
 - The Bond Buyer
- Affects new business
 - Fortune 500 employers pressure MCOs
 - » Assess network – Compaq, Continental, John Deere, Pepsi
 - Rochester Health Commission: Kodak, Xerox, Corning Glass
- Employee, medical staff moral booster
 - Word of mouth impact in community
 - Positive impact on continuous performance improvement

100 Top Hospitals

Meet the New Consumer Challenge

- Moving beyond standard delivery systems
 - Innovation in alternate delivery
 - » Shifts away from inpatient
 - » Integration of care across settings
 - » Internet communication
 - » Telemedicine
- Adoption of business management practices
- Moving beyond the image in marketing
 - Use of 100 Top study and other independent study results
 - » Physician and nurse recruitment
 - » Use of findings in patient education
 - ◆ Early formation of early adopter promotion
 - Combining marketing and community education to increase impact on public

So... What About Cardiovascular Benchmarks?

Is There A Need for Benchmarking? - *From the ACVP Message Board*

- November 6, 2004 at 03:44 PM

“I am looking for places with "Best in Class" time to treatment. Please let me know if you are willing to share your process with other institutions.”

Thanks,
Mary

Solucient 100 Top Hospitals®: Cardiovascular Results Report

- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Introduction**
 - Because cardiovascular disease is the number one killer in the United States, cardiology care represents one of the most common and high profile of all hospital service lines. With more than 1,000 hospitals performing open-heart surgery, and hundreds more offering medical cardiology programs, this specialty is vital to hospital administrators, physicians, and insurers. Because the successful outcome of a procedure or treatment may mean the difference between life and death, *it is crucial that both the hospital industry and the public are informed about cardiovascular procedures, institutions, and outcomes.*
 - Now in its sixth year, the Solucient 100 Top Hospitals®: Cardiovascular Benchmarks for Success study identifies hospitals that are setting benchmark levels of performance for cardiovascular services throughout the nation. This study is part of the Solucient 100 Top Hospitals® initiative, originally developed in 1993.
 - The objective of this study is to identify the top cardiovascular hospitals in the United States, using empirical findings from publicly available performance data. In doing so, we acknowledge high-performing cardiovascular clinical and management teams and seek to determine what drives their performance.
 - Solucient’s 100 Top Hospitals®: Cardiovascular Benchmarks for Success Results Report is an affordable way to view a snapshot of a hospital's performance—both individually and in relation to its peers and to the 100 Top benchmark hospitals. Performance measure scores and graphical analyses help you identify how close you are to being a benchmark hospital and where you stand in relation to your peers. Results Reports help hospital teams assess performance against the latest 100 Top benchmarks and their peers to identify strengths and weaknesses and set performance targets for the future.
- **The following pages contain:**
 - An informative guide to using the report
 - A graphical analysis of your hospital’s performance relative to the benchmark and peer comparison groups
 - Charts showing the performance of the benchmark hospitals versus their peer groups
- So that you may access full details about this year’s Solucient 100 Top Hospitals®: Cardiovascular Benchmarks for Success study—including data sources, methodologies, performance measure definitions, and compelling findings on the winning hospitals—we have included a full study abstract (in PDF form) with this report.

Solucient 100 Top Hospitals®: Cardiovascular Results Report

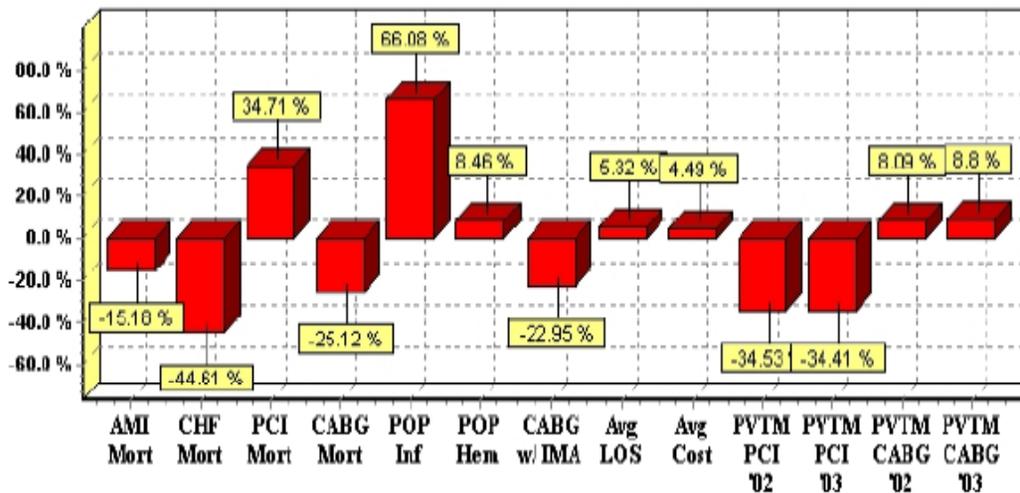
- **Prepared for:** Sample Hospital, Sampletown, USA
 - **Medicare ID:** 440063
 - **How to Use this Report**
 - In the following pages, we compare your hospital's performance with that of the *100 Top Cardiovascular Hospitals* that operate most like your hospital in terms of teaching and residency program status (referred to as the "benchmark") and to *all other* U.S. hospitals in the database that operate most like yours (referred to as the "peer group").
 - **Benchmark hospitals** include all those selected as *100 Top Hospitals®* that are in the same Solucient *100 Top* comparison group as your hospital.
 - **Peer Group hospitals** include all other U.S. hospitals in our database that are in the same Solucient *100 Top* comparison group as your hospital.
 - Teaching and residency programs have a profound effect on the types of patients a hospital treats and the scope of services it provides. When analyzing the performance of an individual hospital, it is crucial that you evaluate it against other like hospitals. To address this, we assigned each hospital in each study group to one of three peer groups according to its teaching and residency program status:
 - • Teaching Hospitals *with* Residency Programs
 - • Teaching Hospitals *without* Residency Programs
 - • Community Hospitals
 - To make the fairest evaluations possible, we compared your hospital with the appropriate peer group. For example, if yours is a teaching hospital, all references to "peer group" will include only other teaching hospitals. For full details about how we define these groups, please see the "Methodology" section of the *100 Top Hospitals®: Cardiovascular Benchmarks for Success* study abstract, included as a separate PDF file with this report.
 - **Understanding the Graphs**
 - The first page of analysis, *Comparisons with Benchmark Medians for your peer group*, shows the percentage by which your hospital either exceeded or fell behind the median performance of other hospitals like yours that were chosen as benchmarks in the 100 Top Hospitals study. For this page only, any score above zero is favorable, and any score below zero is unfavorable. For example, a score of 15 percent for length of stay would indicate that your hospital outperformed its peers in the 100 Top study by 15 percent; in other words, your hospital has a median length of stay 15 percent shorter than others like it that were chosen as benchmarks in our study. A score of 101 (either negative or positive) indicates that the hospital performance measure differs from the benchmark value by more than 101 percent.
 - *Although there are 10 performance measures in the study, on this page, we refer to 13 data points. This accounts for the four separate scores included in the Procedure Volume Threshold*
- For full details about the peer groups and the performance measures, see the "Methodology" section of the *100 Top Hospitals®: Cardiovascular Benchmarks for Success* study abstract, included as a separate PDF file with this report.

Solucient 100 Top Hospitals®: Cardiovascular Results Report

- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- The remaining pages provide further analysis, devoting a page to each of the performance measures. For each measure, the analysis shows median values for four groups: your hospital, the benchmark group, "benchmark best quartile", and the entire peer group for your hospital. For performance measures for which values above the median are favorable, the benchmark best quartile shows the 75th percentile value for the benchmark group. For performance measures for which values below the median are favorable, the benchmark best quartile shows the 25th percentile value for the benchmark group. Please see below for an explanation of quartiles and refer to the Methodology section for more details on each performance measure and an indication of whether higher or lower values are favorable.
- *Note:* If the data needed to calculate any performance measures for this hospital were not available when this study was performed, bars will not appear for these elements in the charts. If any performance measures *have* been excluded from this report, this will be noted in an appendix at the end of this document.
- **A Note about Medians and Quartiles**
- This Results Report uses median and quartile values to compare your hospital with the *100 Top Hospitals®*. Median values are the single best measure for evaluating relative performance. Many statisticians prefer medians to averages for describing the typical hospital for several reasons. First, for distributions of values that are symmetrical, the mean (average) and median are the same value. Second, for distributions of values that are asymmetrical, but still approximate a statistically "normal" distribution, the mean and median assume nearly the same value. (A statistically normal distribution has many values clustered around the mean and progressively fewer values toward the extremes of the range of values.) However, for distributions that are skewed or have a relatively large number of extreme values, such as the distribution of average lengths of stay, the median is a better measure of the performance of the "typical" hospital because, unlike the mean, it is not as greatly affected by extreme values.
- Quartile values divide a sample of hospitals into four groups equal in number. The first quartile value (the 25th percentile) is the value for which 25 percent of the sample has lesser values and 75 percent of the sample has greater values. The 50th percentile (the middle, or median, value) is the value for which 50 percent of the sample has lesser values and 50 percent of the sample has greater values (the value that divides the sample into halves). The third quartile value (the 75th percentile) is the value for which 75 percent of the sample has lesser values and 25 percent of the sample has greater values.

Solucient 100 Top Hospitals®: Cardiovascular Results Report Example

Comparisons with Benchmark Medians of Teaching Hospitals with Cardiovascular Residency



- *NOTES: Although there are 10 performance measures in the study, on this page, we refer to 13 data points. This accounts for the 4 separate scores included in the Procedure Volume Threshold measure.*
- *For this page only, any score above zero is favorable, and any score below zero is unfavorable.*
- *If the data needed to calculate a performance measure for this hospital were not available when this study was performed, a bar will not appear for the measure.*
- *A percent value of 101 (either negative or positive) indicates that the hospital performance measure differs from the benchmark value by more than 101 percent.*

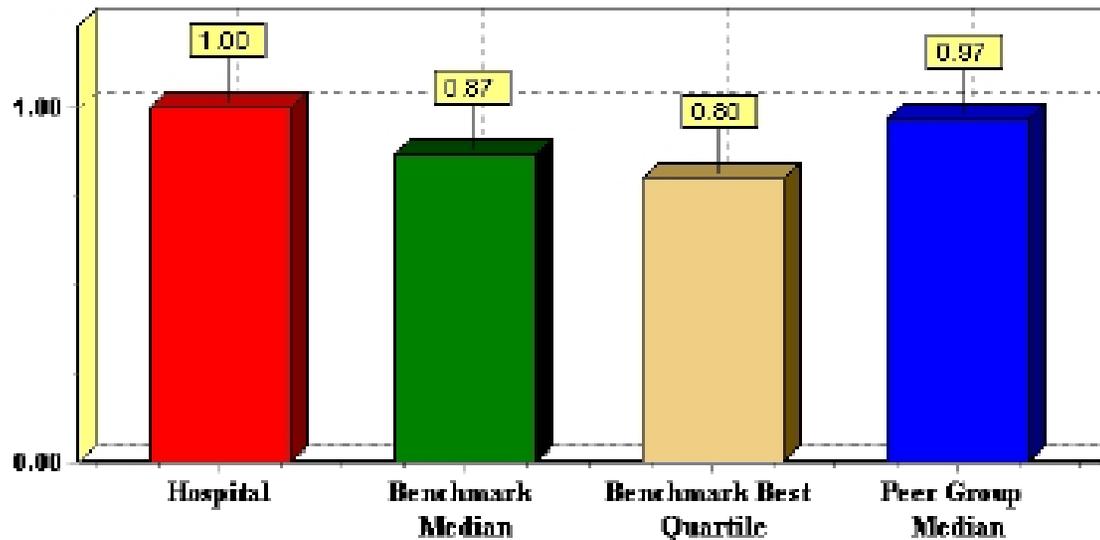


Sample Hospital exceeds the median performance of its benchmark peer group in 7 of the 13 data points.

- **Abbreviation Key:**
- AMI Mort: Risk-adjusted acute myocardial infarction patient mortality index
- CHF Mort: Risk-adjusted congestive heart failure patient mortality index
- PCI Mort: Risk-adjusted percutaneous coronary intervention patient mortality index
- CABG Mort: Risk-adjusted coronary artery bypass graft patient mortality index
- POP Inf: Risk-adjusted post-operative infection index
- POP Hem: Risk-adjusted post-operative hemorrhage index
- CABG w/ IMA: Percentage of CABG patients with internal mammary artery use
- Avg LOS: Severity-adjusted average length of stay
- Avg Cost: Wage- and severity-adjusted average cost
- PVTM PCI '02: PCI procedure volume for 2002
- PVTM PCI '03: PCI procedure volume for 2003
- PVTM CABG '02: CABG procedure volume for 2002
- PVTM CABG '03: CABG procedure volume for 2003

Risk-Adjusted Acute Myocardial Infarction (AMI) Patient Mortality Index

Risk-Adjusted Medical (AMI) Patient Mortality Index

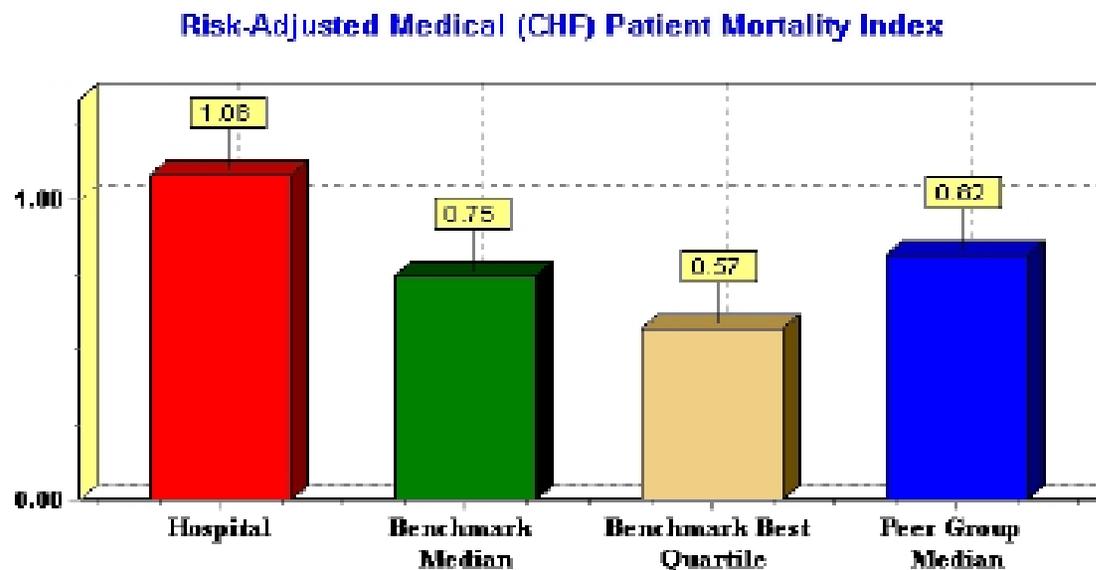


Prepared for: Sample Hospital, Sampletown, USA

Medicare ID: 440063

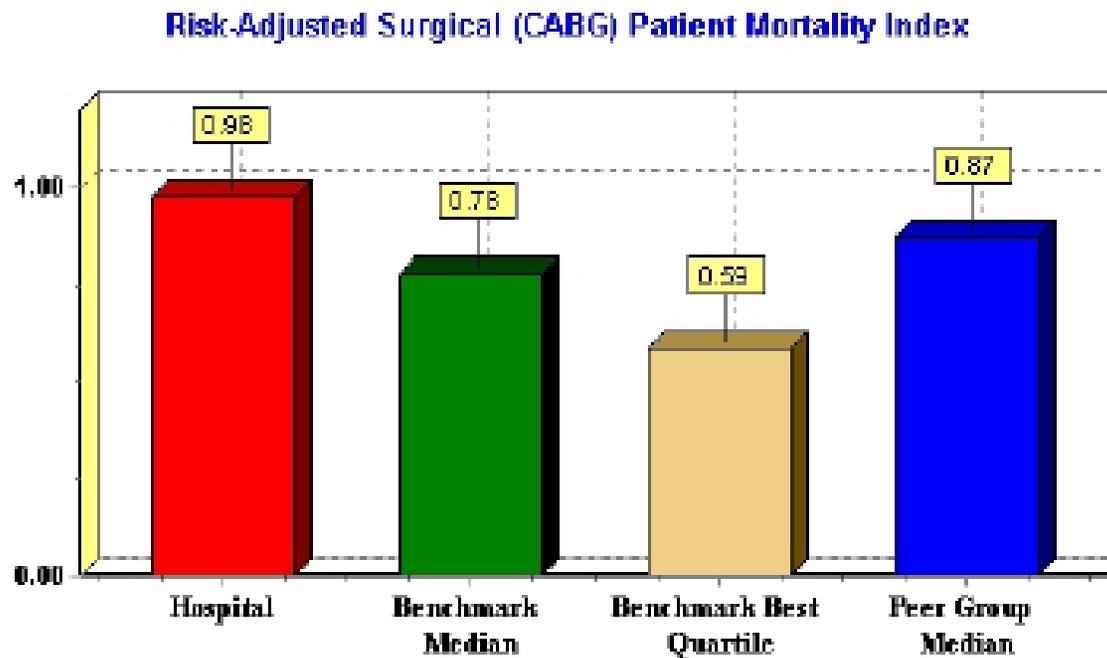
Risk-adjusted acute myocardial infarction (AMI) patient mortality index for Sample Hospital, displayed with the median and best quartile of its benchmark group, and the median of its peer group.

Risk-Adjusted Congestive Heart Failure (CHF) Patient Mortality Index



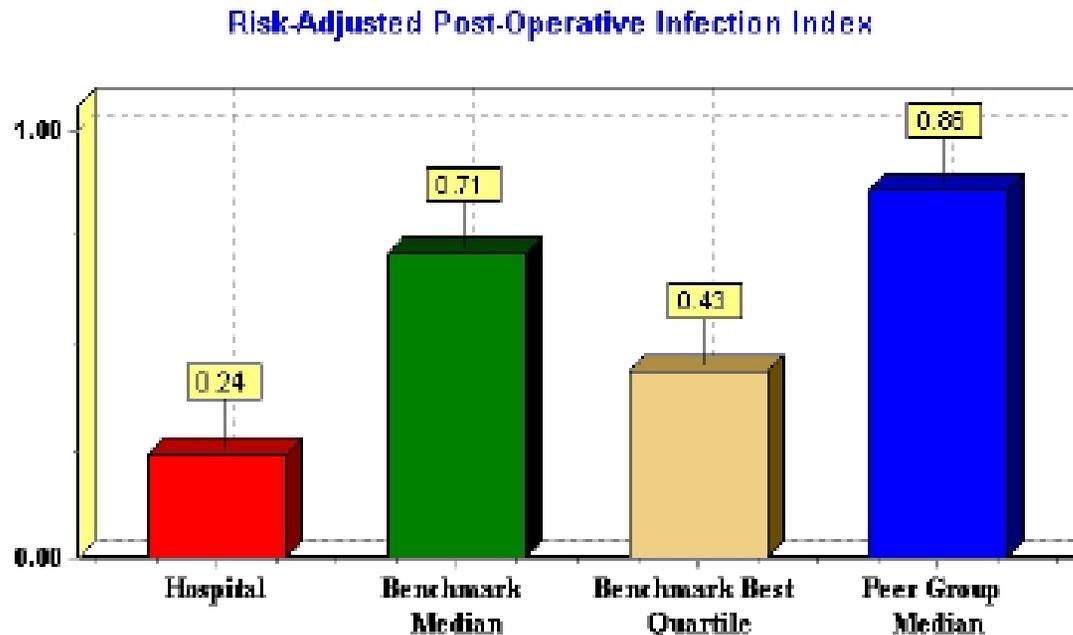
- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Risk-adjusted congestive heart failure (CHF) patient mortality index for Sample Hospital**, displayed with the median and best quartile of its benchmark group, and the median of its peer group.
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Risk-Adjusted Coronary Artery Bypass Graft (CABG) Patient Mortality Index



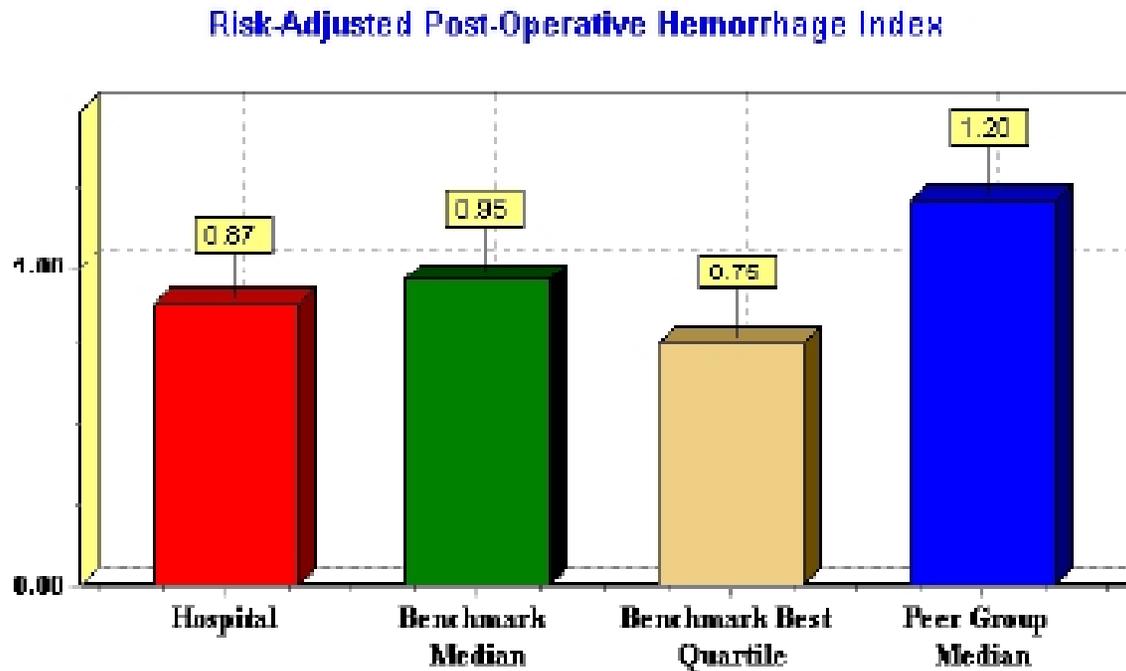
- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Risk-adjusted coronary artery bypass graft (CABG) mortality index for Sample Hospital**, median and best quartile of its benchmark group, and the median of its peer group.

Risk-Adjusted Post Operative Infection Rate



- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Risk-adjusted postoperative infection rate for Sample Hospital, median and best quartile of its benchmark group, and the median of its peer group.**

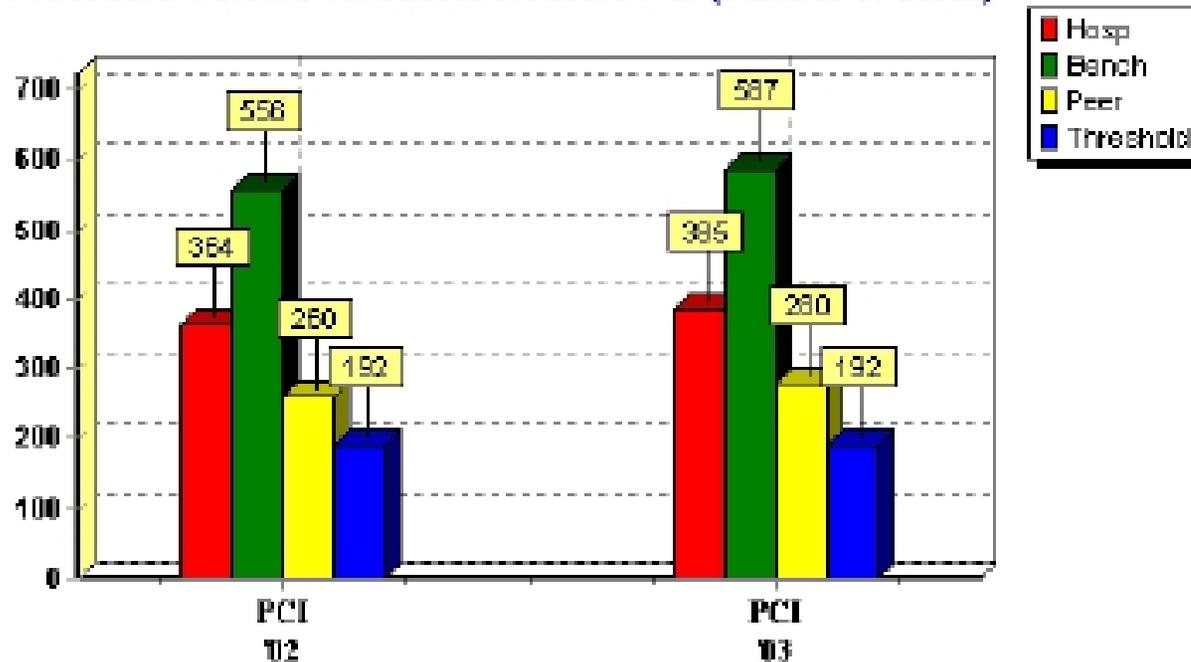
Risk-Adjusted Post Operative Hemorrhage Index



- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Risk-adjusted postoperative hemorrhage index for Sample Hospital, median and best quartile of its benchmark group, and the median of its peer group.**

Procedure Volume Threshold Measure – PCI (Number of Cases)

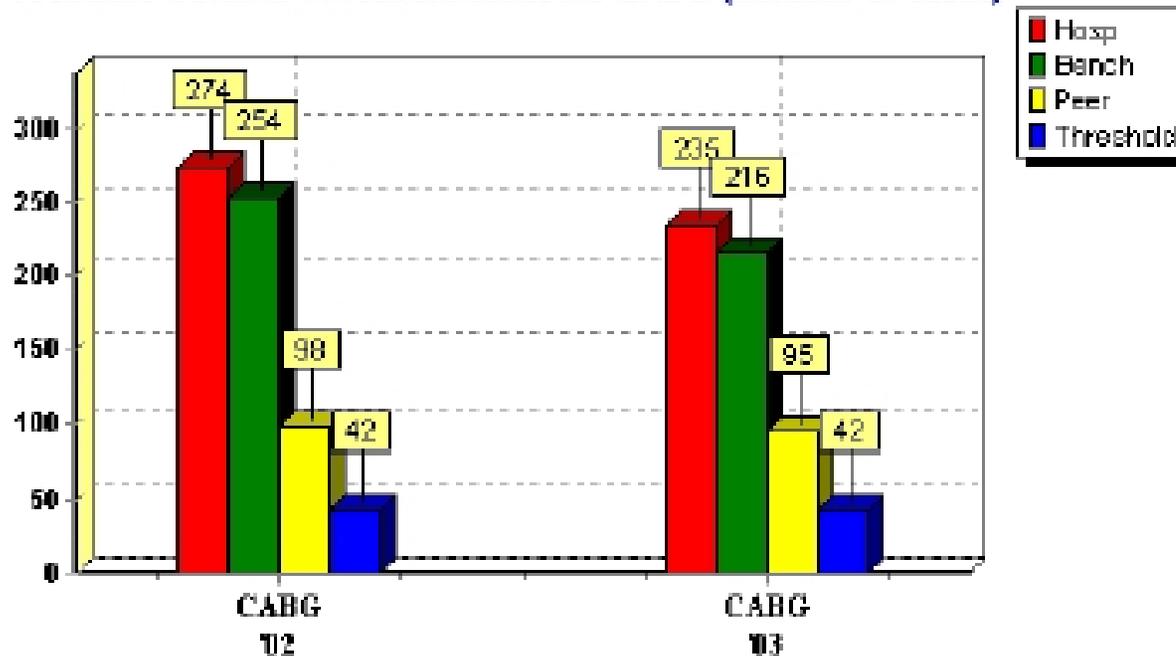
Procedure Volume Threshold Measure PCI (number of cases)



- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **PCI Procedure volume threshold measures (number of cases) for Sample Hospital, median and best quartile of its benchmark group, and the median of its peer group.**

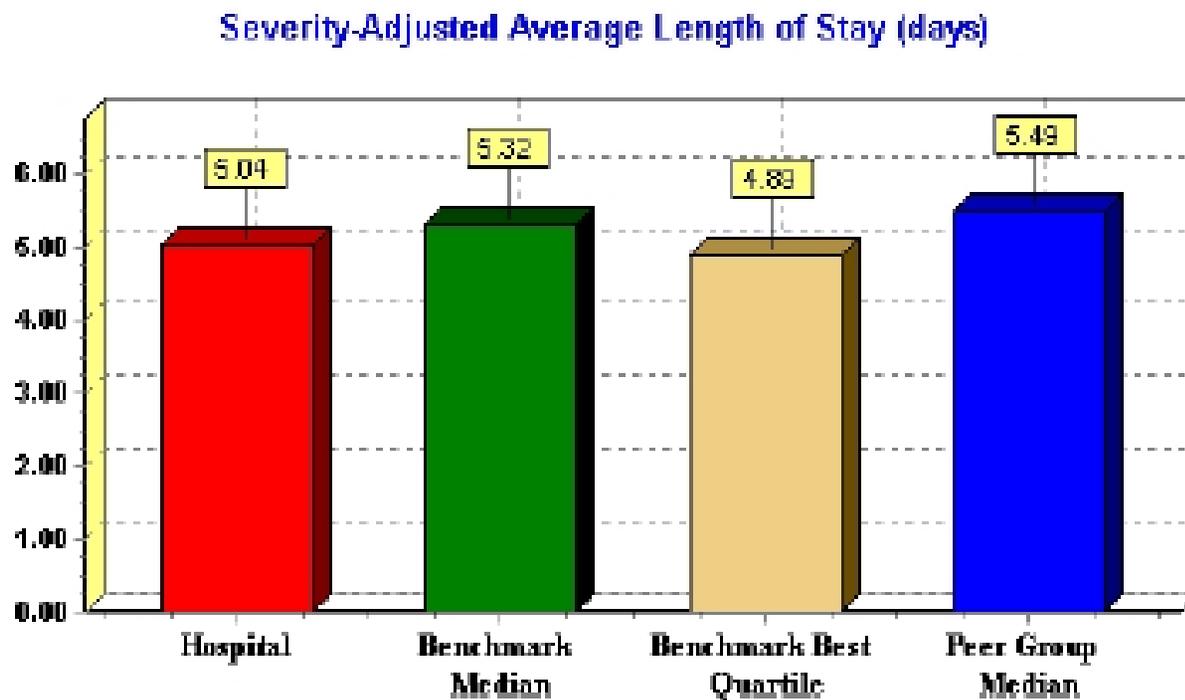
Procedure Volume Threshold Measure – CABG (Number of Cases)

Procedure Volume Threshold Measure CABG (number of cases)



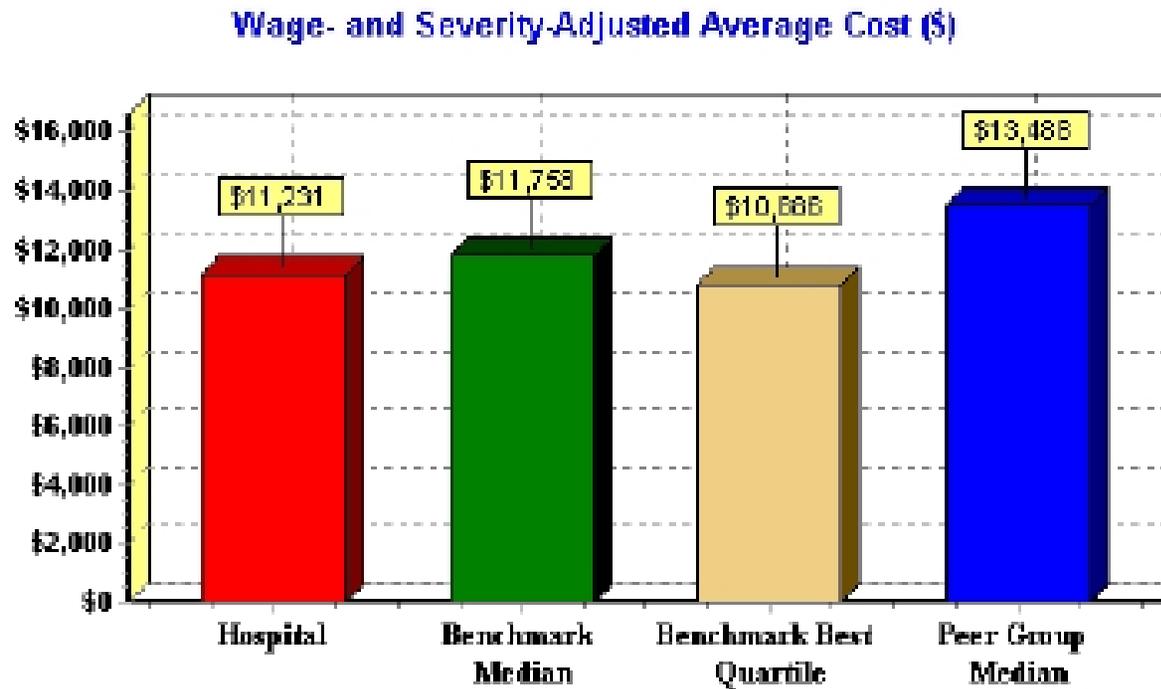
- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **CABG Procedure volume threshold measures (number of cases) for Sample Hospital**, median and best quartile of its benchmark group, and the median of its peer group.

Severity-Adjusted Average Length of Stay (days)



- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Severity – adjusted average length of stay in days for Sample Hospital, median and best quartile of its benchmark group, and the median of its peer group.**

Wage and Severity-Adjusted Average Cost (in dollars)



- **Prepared for:** Sample Hospital, Sampletown, USA
- **Medicare ID:** 440063
- **Wage and severity-adjusted average cost in dollars for Sample Hospital, median and best quartile of its benchmark group, and the median of its peer group.**

Final Benchmarking Thoughts

- When you pick a benchmark vendor, you are choosing three things
 - **The database** - Remember that SIZE matters. The larger the number of comparable participating companies in the database, the better. The freshness of the data is also important.
 - **The questionnaire** - Review sample questionnaires before making a selection and see whether, in light of the answers you expect to get, the vendor is asking the right questions.
 - **The action plan**
 - » First you measure your company against your peers...
 - » Then you improve
 - » And remember, *clinical buy in is essential to success.*

Source: Benchmarking Babylon, by Richard Gamble, Treasury and Risk Management Magazine, November/December, 1997

Conclusion to:

Healthcare Finance and Benchmarking

- We have reviewed
 - Why benchmarking is important
 - What is the value of benchmarking
 - What kind of healthcare benchmarks exist
 - Why you might want to trust benchmark data
 - Why benchmark system outcomes differ
 - Why benchmark data can be used to improve operations both financially and clinically
- We have reviewed several case studies attesting to improved operations and ways in which you too could achieve it.
- **Benchmarks**
 - *Set goals using benchmarks*
 - *Implement improvement plans*
 - *Monitor outcomes*
 - *Take actions when actions are not achieved*