

100 TOP HOSPITALS: CARDIOVASCULAR BENCHMARKS STUDY 2009

A NATIONAL BALANCED SCORECARD

PERFORMANCE REPORT PREPARED FOR:

General Hospital

Anytown, USA

MEDICARE ID: 771234

INTRODUCTION

THOMSON REUTERS 100 TOP HOSPITALS®: CARDIOVASCULAR BENCHMARKS STUDY

The Thomson Reuters 100 Top Hospitals: Cardiovascular Benchmarks is a quantitative study that uses a balanced scorecard approach, based on publicly available data, to identify the top cardiovascular hospitals in the United States. With this custom report, we apply the same methods to an individual hospital. Performance measure scores and graphical analysis help you identify how close you are to being a benchmark hospital and where you stand in relation to your peers. Using the Cardiovascular Benchmarks Profile, you can identify your hospital's performance achievement overall and by individual performance measure. This profile also shows the performance of the Cardiovascular study award winners and all other non-winning hospitals in the profiled hospital's comparison group (hospitals most like it in terms of size and residency program status).

Like the Cardiovascular Benchmarks study on which it is based, this custom report includes data from hospitals that treat a broad spectrum of cardiology patients. This includes those who require medical management only (acute myocardial infarction (AMI) and heart failure (HF) patients) and those who receive invasive or surgical procedures (percutaneous coronary intervention (PCI) and coronary artery bypass graft (CABG) patients).

COMPARISON GROUPS AND BENCHMARKS

Benchmark and Peer Groups

For the Cardiovascular Benchmarks study award, we select **Benchmark hospitals** (winners) in each class, based on their overall performance achievement in the most recent year of data available. **Peer group hospitals** include all U.S. hospitals in our study database, *excluding* benchmark hospitals.

On the following pages, we compare your hospital's performance with that of the hospitals that operate most like it in terms of bed size, teaching status, and residency/fellowship program involvement (your *comparison group*). Two types of comparisons are made:

- the profiled hospital versus all winners in the same comparison group (*Benchmark* hospitals)
- the profiled hospital versus all non-winners in the same comparison group (*Peer Group* hospitals)

Comparison Groups

We assign each hospital to one of three comparison groups according to its size, teaching status, and residency/fellowship program involvement (the abbreviations used for these groups in this study's graphics are in parentheses below):

- Teaching hospitals with cardiovascular residency programs (CARDIO TEACHING)
- Teaching hospitals without cardiovascular residency programs (TEACHING)
- Community hospitals (COMMUNITY)

For full details about the comparison groups, please see the "Methodology" section of the study abstract.

STUDY ABSTRACT

For full details about the Cardiovascular Benchmarks study, please see the study abstract, included as a separate PDF document with this report. The abstract publication contains information on the following:

- The research behind and validity of the study—with insight into how we keep our criteria and methods current
- Methodology details, including data sources, performance measure definitions, and ranking techniques
- Compelling findings on the winning hospitals
- Lists of all past and present winning hospitals

FOR MORE INFORMATION

For more information, including lists of winners, details about other 100 Top Hospitals studies, and the latest published study abstracts, visit www.100tophospitals.com.

ABOUT THOMSON REUTERS

The Healthcare business of Thomson Reuters produces insights, information, benchmarks, and analysis that enable organizations to manage costs, improve performance, and enhance the quality of healthcare. Thomson Reuters is the world's leading source of intelligent information for businesses and professionals. We combine industry expertise with innovative technology to deliver critical information to leading decision makers in the financial, legal, tax and accounting, scientific, healthcare, and media markets, powered by the world's most trusted news organization. With headquarters in New York and major operations in London and Eagan, Minn., Thomson Reuters employs more than 50,000 people in 93 countries. Thomson Reuters shares are listed on the New York Stock Exchange (NYSE: TRI); Toronto Stock Exchange (TSX: TRI); London Stock Exchange (LSE: TRIL); and Nasdaq (NASDAQ: TRIN). For more information, go to thomsonreuters.com.

100 TOP HOSPITALS CARDIOVASCULAR BENCHMARKS PROFILE 2008

CARDIOVASCULAR BENCHMARKS PROFILE

Since 1993, the 100 Top Hospitals program has been dedicated to raising the bar for the visibility and use of statistically valid, actionable national benchmarks for performance improvement. The basis of our studies is the 100 Top Hospitals balanced scorecard, designed to enable leaders of hospitals or service lines to compare a hospital's performance with national benchmarks and target higher performance.

The 100 Top Hospitals Cardiovascular Benchmarks Profile analyzes your hospital's performance in the most recent year available, using a balanced scorecard of eight (8) critical performance metrics of equal weight:

1. Risk-Adjusted Medical Mortality (AMI and HF indexes)
2. Risk-Adjusted Surgical Mortality (PCI and CABG indexes)
3. Risk-Adjusted Complications (Post-operative Hemorrhage and Post-operative Infection indexes)
4. Core Measures Mean Percent (AMI and HF core measures)
5. Percentage of Patients with Internal Mammary Artery Use
6. Procedure Volume Threshold Score
7. Severity-Adjusted Average Length of Stay
8. Severity and Wage-Adjusted Cost per Case

Using this Profile, you can identify the hospital's level of cardiovascular performance achievement overall and by individual performance measure. In addition, the Profile shows the level of achievement of national award-winning (benchmark) hospitals, as well as the achievement of all other non-winning hospitals, in your comparison group.

UNDERSTANDING THE GRAPHS

Summary Graph: Profiled Hospital Compared with Top (Winner) Hospitals in Your Comparison Group

This bar graph shows the percentage by which the profiled hospital either exceeded or fell behind the median performance of the winning hospitals in the comparison group of similar hospitals. The number of winners in the profiled hospital's class (n) is indicated in the graph title. There is a separate bar for each of the 12 reported performance measures. (This includes subcomponents of mortality, complications, and core measures.)

Green bars above the graph signify that the profiled hospital's performance was above that of the benchmark hospitals. Red bars below the graph signify that the profiled hospital's performance was below that of the benchmark hospitals. The number shown with each bar is the percent difference between the profiled hospital's value and the median value of all the winners in the hospital's comparison group.

Note: If the percent difference is 100% or greater, 100% will be displayed.

The 95% confidence interval limits are displayed in the table below the graph for the binomial measures – mortality, complications, post-operative infection and post-operative hemorrhage – measures for which there is an observed and an expected value.

Individual Performance Measure Detail Graphs: Profiled Hospital Compared with Class Benchmark and Peer Hospitals

This section contains individual bar graphs for the following performance measures and patient groups:

- AMI Patients: risk-adjusted mortality index, core measures mean percent, severity-adjusted average length of stay, and wage and severity-adjusted cost per case.
- HF Patients: risk-adjusted mortality index, core measures mean percent, severity-adjusted average length of stay, and wage and severity-adjusted cost per case.
- CABG Patients: risk-adjusted mortality index, percent CABG with internal mammary artery use, severity-adjusted average length of stay, and wage and severity-adjusted cost per case.
- PCI Patients: risk-adjusted mortality index, severity-adjusted average length of stay, and wage and severity-adjusted cost per case.
- Surgical Patients (CABG & PCI combined): risk-adjusted post-operative infection rate and risk-adjusted post-operative hemorrhage index.
- Surgical Patients: CABG procedure volumes and PCI procedure volumes versus the respective thresholds.

Each bar graph shows performance achievement levels for three groups: the profiled hospital, the benchmark group median, and the peer group median, with actual median data stated for each.

Length of Stay and Cost per Case – All Cardiovascular Patients

Two additional bar charts display severity-adjusted average length of stay and severity-adjusted cost per case for all cardiovascular patients, combined. Like the other individual measure bar graphs, these bar graphs show performance achievement levels for three groups: the profiled hospital, the benchmark group median, and the peer group median, with actual median data stated for each.

Core Measures Detail

This section contains a bar graph with data for each core measure (10 total) included in developing the composite Core Measures Mean Percent. There is a separate bar graph for AMI and HF core measures. The graphs show performance achievement levels for three groups: the profiled hospital, the benchmark group median, and the peer group median, with actual median data stated for each.

REPORT NOTES

Use of Median Values

- When individual core measures are missing or the reported value is insufficiently precise (patient count too low), we substitute class median values for the hospital value(s). We do this to neutralize the missing or unusable value(s) and allow overall ranking of the hospital.

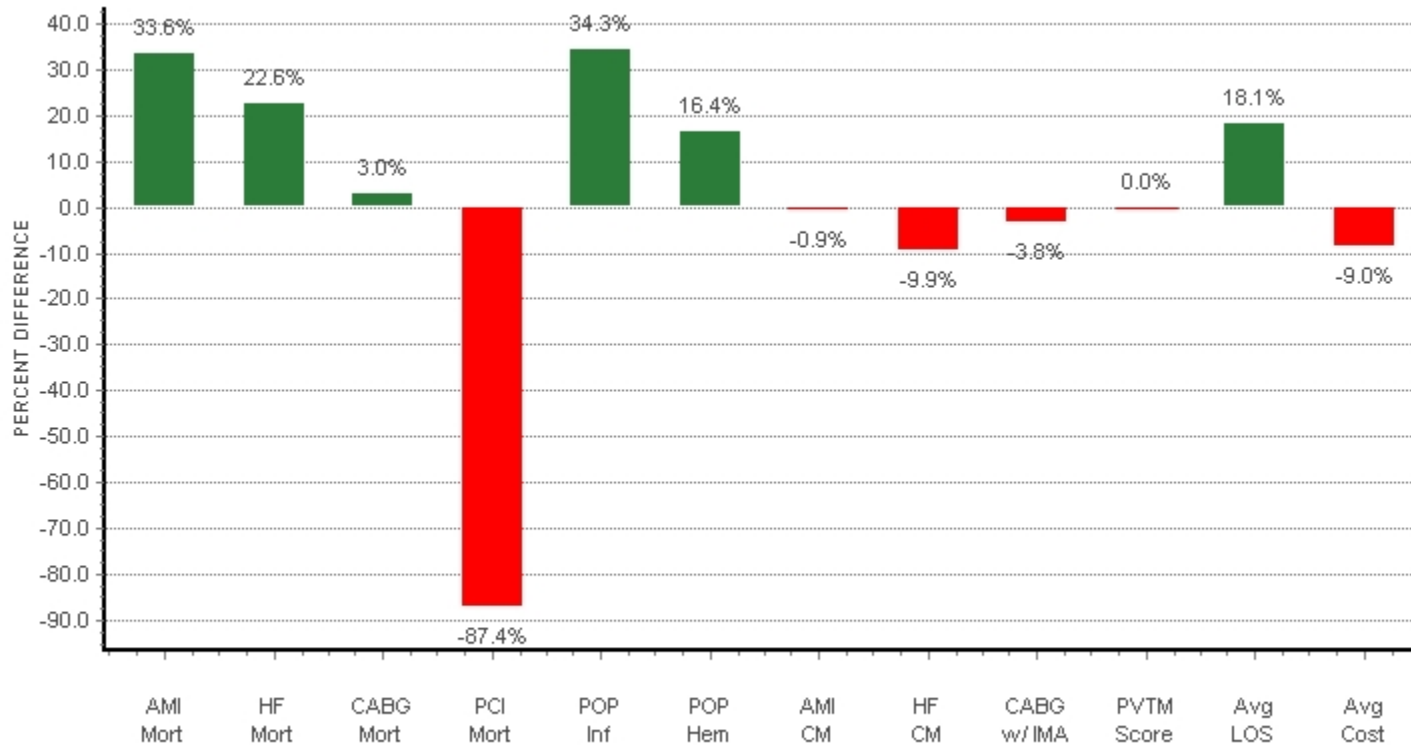
Missing or Incalculable Data Points

- No bar is displayed for the profiled hospital if values were not reported or are incalculable.
- If a hospital was excluded from the study for missing or incalculable performance measures, the details are noted at the end of the report.
- If a hospital was not eligible to be a winner due to statistically poor performance in mortality or complications (90% confidence), the details are noted at the end of the report.
- If a hospital was not eligible to be a winner because it had one or more outliers (interquartile range methodology) for wage and severity-adjusted cost per case, the details are noted at the end of the report.

More Information on Methodologies

The Methodology section of the 2009 100 Top Hospitals: Cardiovascular Benchmarks study abstract provides more details on the calculation of each performance measure and an indication of whether higher or lower values are favorable. It also describes the methodologies for calculating confidence limits and outliers, and for determining statistically poor performance on the mortality and complications measures.

PROFILED HOSPITAL COMPARED WITH TOP 30 CARDIO TEACHING HOSPITALS¹ 2008

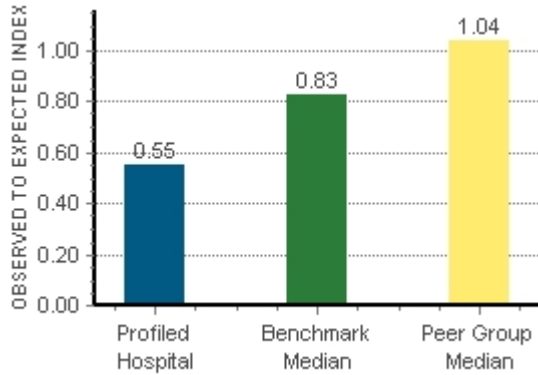


¹ Percent difference between the profiled hospital value and the median value of the winners in the hospital comparison group.

PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

AMI PATIENTS

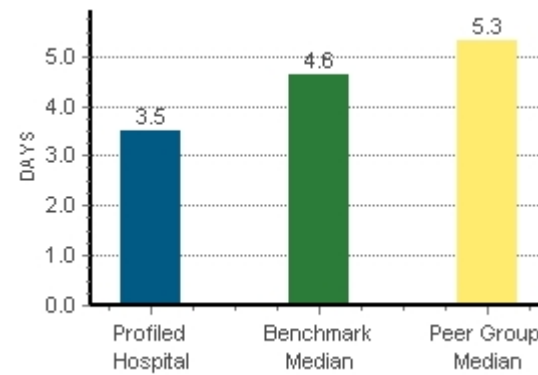
RISK-ADJUSTED MORTALITY INDEX



Profiled hospital is statistically BETTER THAN expected. (95% confidence)

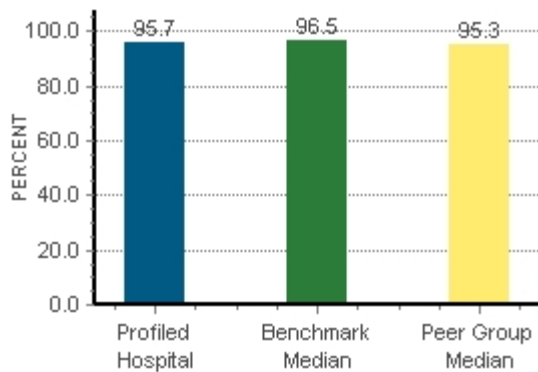
▼ DESIRED DIRECTION

SEVERITY-ADJUSTED AVERAGE LENGTH OF STAY



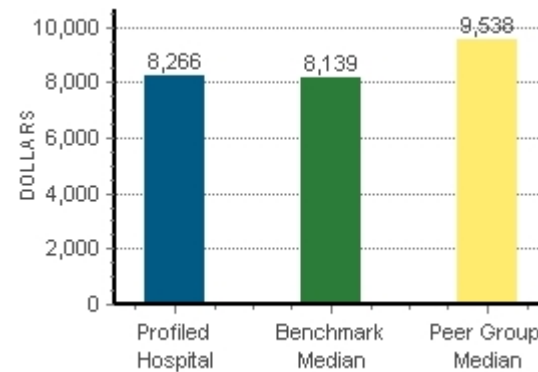
▼ DESIRED DIRECTION

CORE MEASURES MEAN PERCENT



▲ DESIRED DIRECTION

WAGE AND SEVERITY-ADJUSTED COST PER CASE



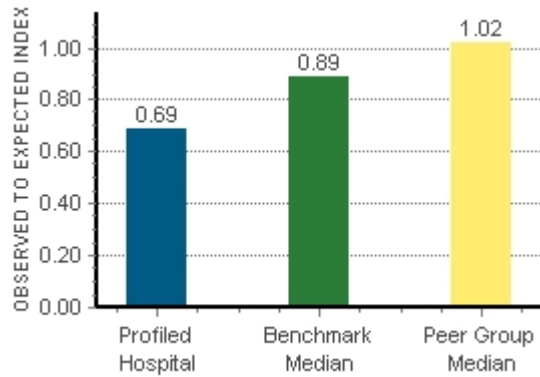
▼ DESIRED DIRECTION

1. Benchmark Hospitals are the winners in the comparison group: n = 30
 2. Peer Hospitals are the non-winners in the comparison group: n = 137

PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

HF PATIENTS

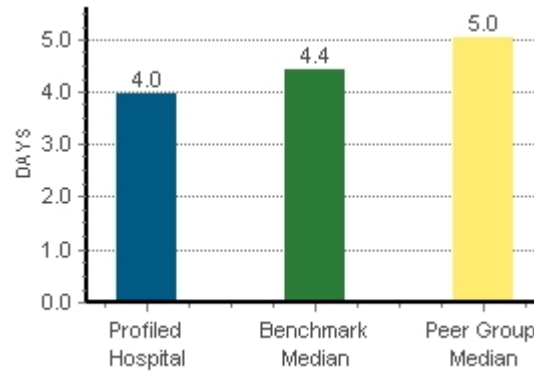
RISK-ADJUSTED MORTALITY INDEX



Profiled hospital is statistically AS expected. (95% confidence)

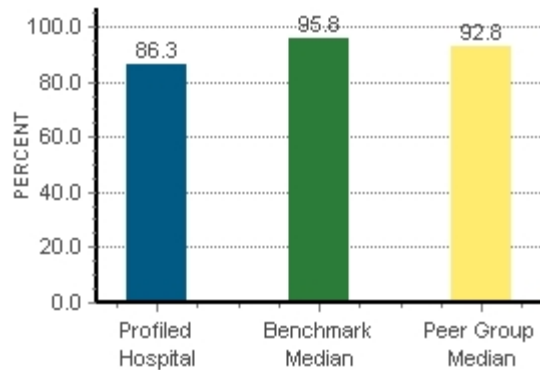
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SEVERITY-ADJUSTED AVERAGE LENGTH OF STAY



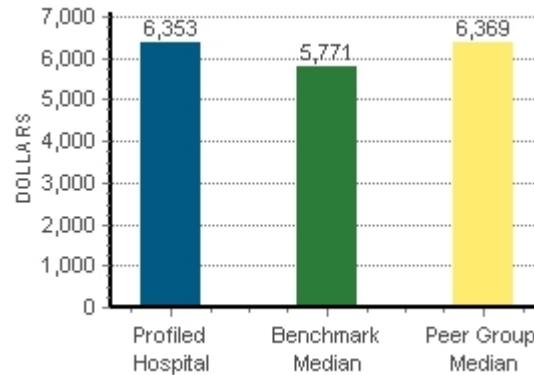
▼ DESIRED DIRECTION

CORE MEASURES MEAN PERCENT



▲ DESIRED DIRECTION

WAGE AND SEVERITY-ADJUSTED COST PER CASE



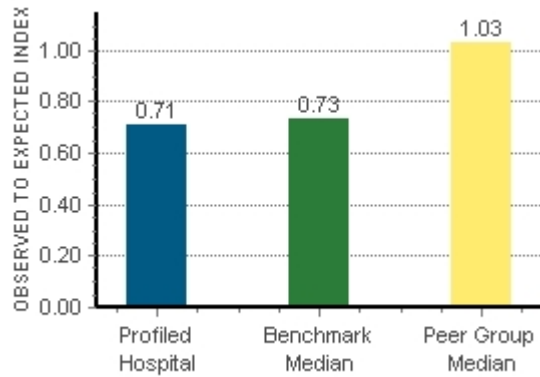
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PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

CABG PATIENTS

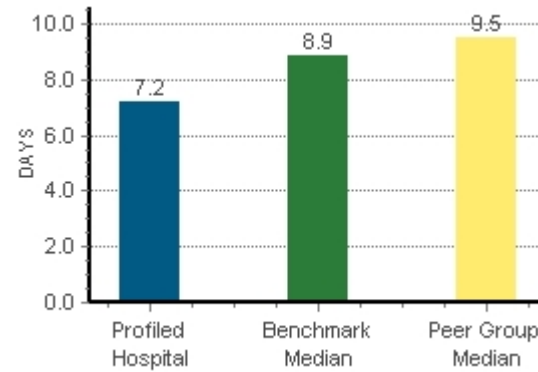
RISK-ADJUSTED MORTALITY INDEX



Profiled hospital is statistically AS expected. (95% confidence)

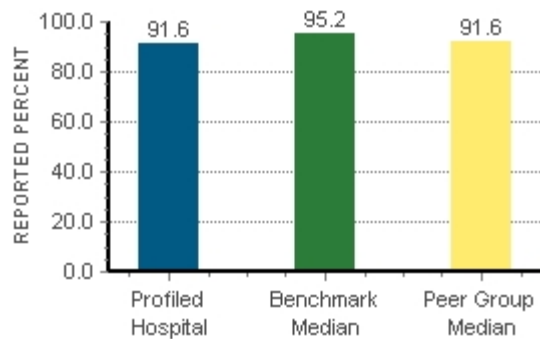
▼ DESIRED DIRECTION

SEVERITY-ADJUSTED AVERAGE LENGTH OF STAY



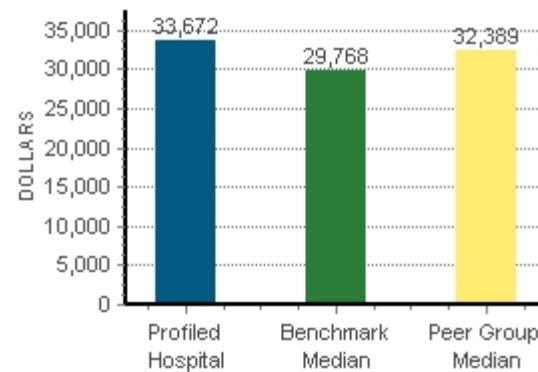
▼ DESIRED DIRECTION

% CABG w INTERNAL MAMMARY ARTERY USE



▲ DESIRED DIRECTION

WAGE AND SEVERITY-ADJUSTED COST PER CASE



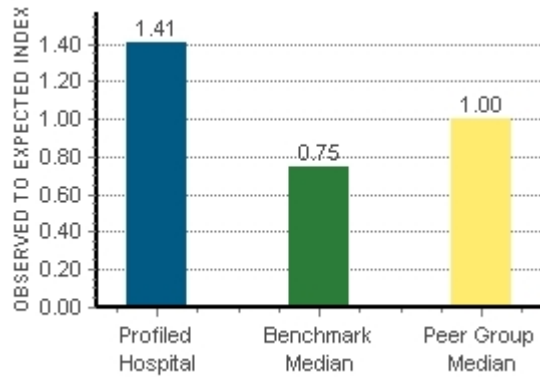
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PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

PCI PATIENTS

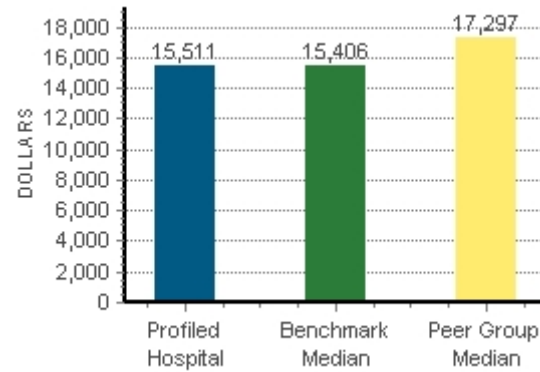
RISK-ADJUSTED MORTALITY INDEX



Profiled hospital is statistically AS expected. (95% confidence)

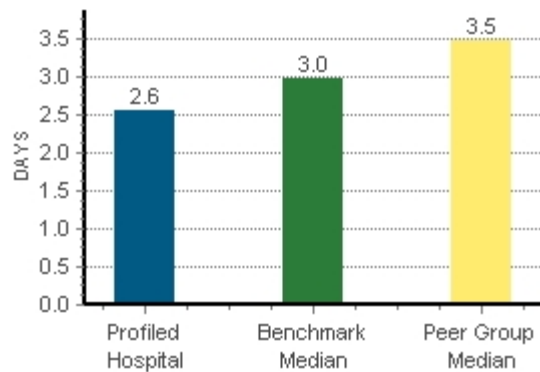
▼ DESIRED DIRECTION

WAGE AND SEVERITY-ADJUSTED COST PER CASE



▼ DESIRED DIRECTION

SEVERITY-ADJUSTED AVG LENGTH OF STAY



▼ DESIRED DIRECTION

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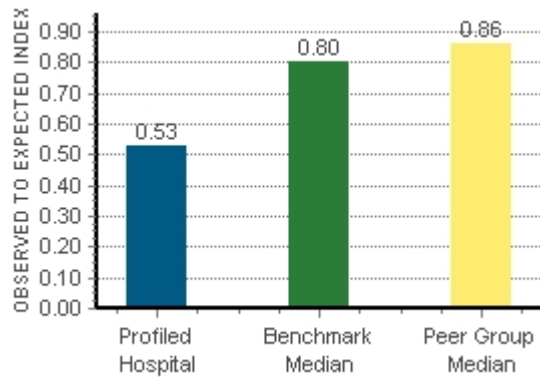
PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

SURGICAL PATIENTS (CABG & PCI)

RISK-ADJUSTED POST-OPERATIVE INFECTION RATE

Profiled hospital is statistically AS expected.
(95% confidence)

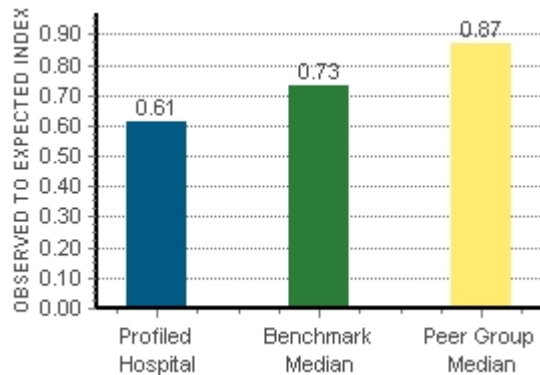
▼ DESIRED DIRECTION



RISK-ADJUSTED POST-OPERATIVE HEMORRHAGE INDEX

Profiled hospital is statistically AS expected.
(95% confidence)

▼ DESIRED DIRECTION



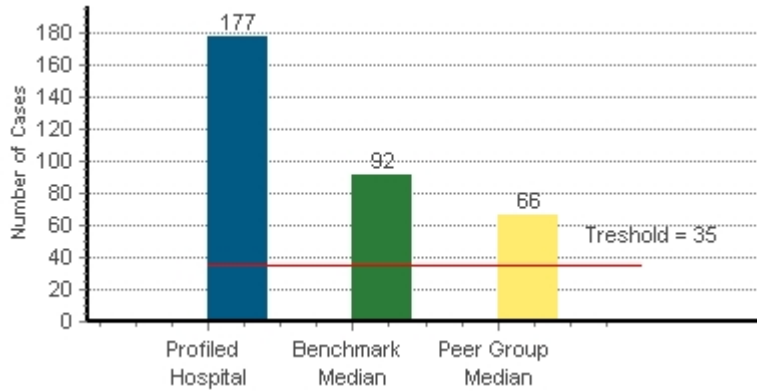
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PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

SURGICAL PATIENTS (CABG & PCI)

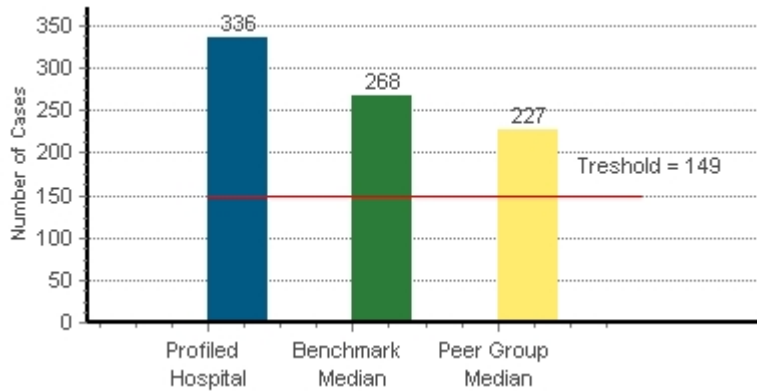
CABG PROCEDURE VOLUME THRESHOLD MEASURE (PVTM)

▲ DESIRED DIRECTION



PCI PROCEDURE VOLUME THRESHOLD MEASURE (PVTM)

▲ DESIRED DIRECTION



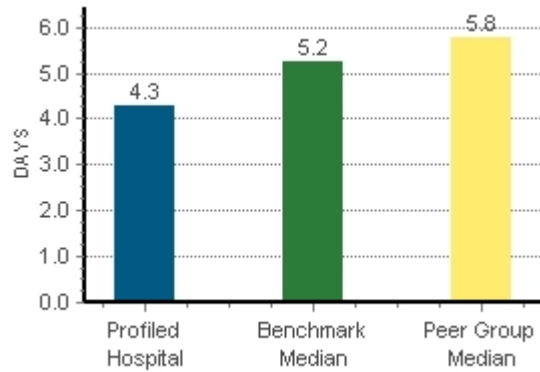
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PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

ALL CARDIOVASCULAR PATIENTS

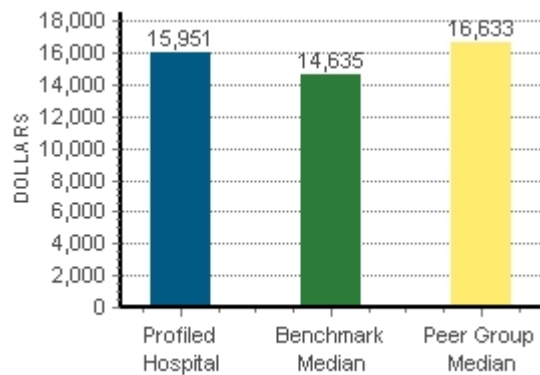
SEVERITY-ADJUSTED AVERAGE LENGTH OF STAY

▼ DESIRED DIRECTION



WAGE- AND SEVERITY-ADJUSTED COST PER CASE

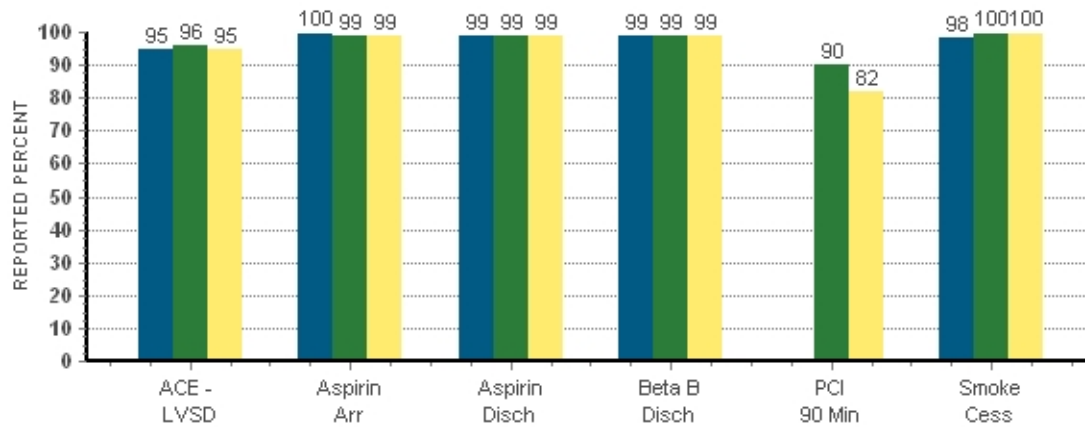
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PROFILED HOSPITAL COMPARED WITH CARDIO TEACHING BENCHMARK¹ AND PEER² HOSPITALS 2008

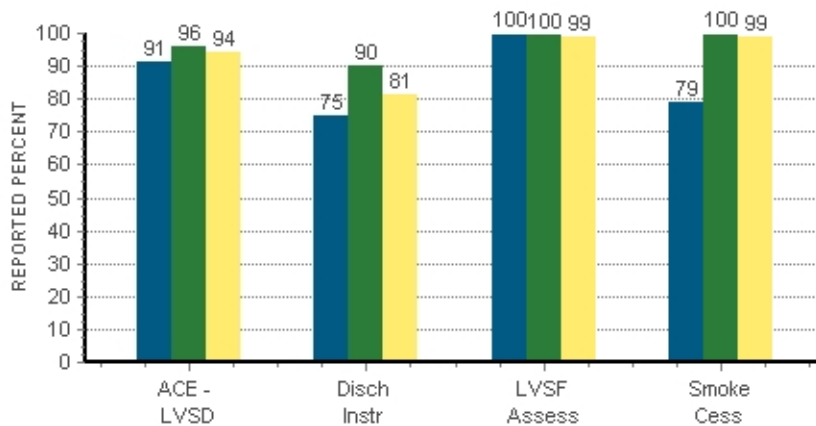
AMI CORE MEASURES



AMI ABBREVIATION KEY:

- ACE LVSD Heart attack patients given ACE inhibitor or ARB for Left Ventricular Systolic Dysfunction (LVSD)
- Aspirin ARR Heart attack patients given aspirin at arrival
- Aspirin Disch Heart attack patients given aspirin at discharge
- Beta B Disch Heart attack patients given beta blocker at discharge
- PCI 90 Min Heart attack patients given PCI within 90 minutes of arrival
- Smoke Cess Heart attack patients given smoking cessation counseling

HF CORE MEASURES



HF ABBREVIATION KEY:

- ACE LVSD Heart failure patients given ACE inhibitor or ARB for Left Ventricular Systolic Dysfunction (LVSD)
- Disch Instr Heart failure patients given discharge instructions
- LVSF Assess Heart failure patients given an evaluation of Left Ventricular Systolic Function (LVSF)
- Smoke Cess Heart attack patients given smoking cessation counseling

- Profiled Hospital
- Benchmark Median
- Peer Median

" DESIRED DIRECTION

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