

# Community Hospital Benchmarking Report prepared for:

**Sample Hospital  
City, State/Province**

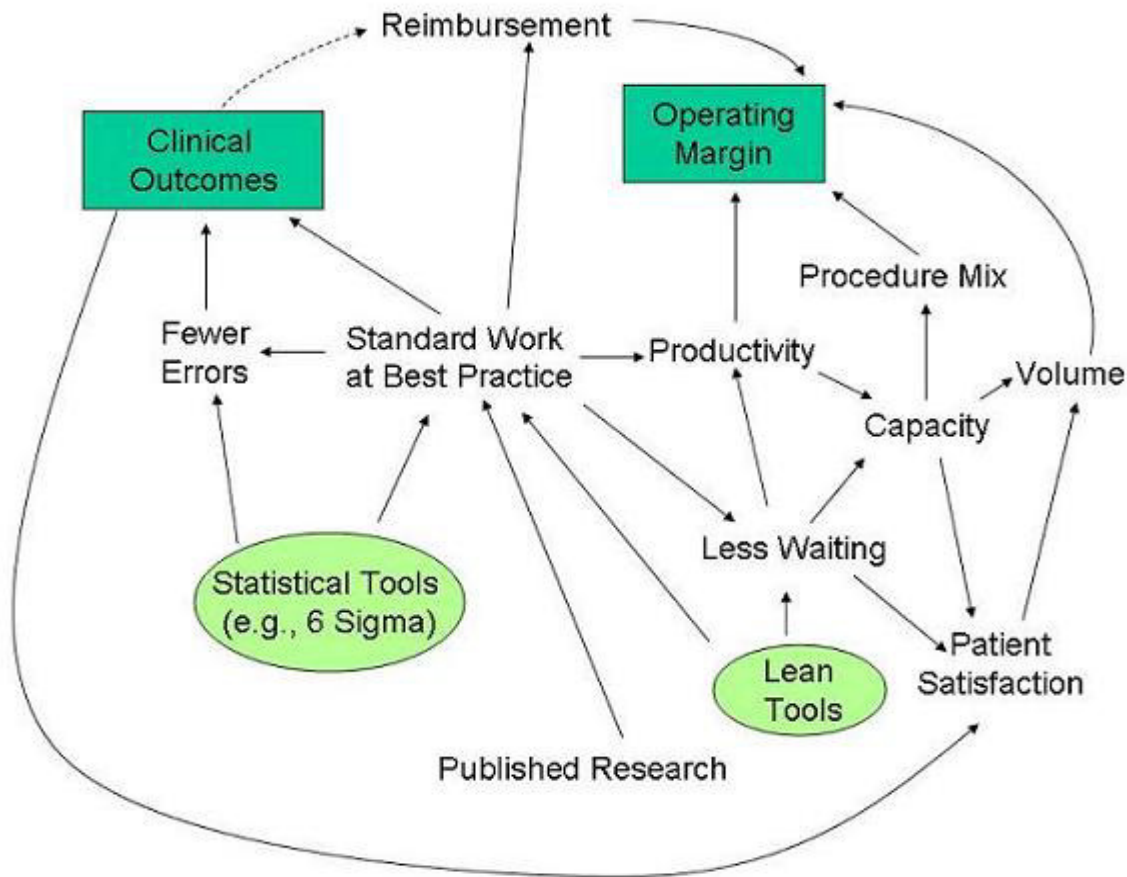
**October 29, 2009**

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# 1. Introduction: Measuring Hospital Performance

We believe that hospitals have access to a blizzard of data, but not much real information. In the U.S., hospitals generally track patient satisfaction in hopes of being able to use the results in marketing. Most other data are collected and reported mainly (or only) because it is required by government and quasi-government organizations. Our measurement system features just 37 metrics, and is driven by a simple, but powerful, theory: that all processes (from registration to operating rooms to recovery beds) are either running or waiting, and that only running can add value for both the patient and the hospital. Running may result in good or bad clinical outcomes, and the most predictable cause of bad outcomes is the failure, in both diagnosis and treatment, to make best practice into standard work. The diagram below shows our theory. Running and avoiding errors creates capacity which, if filled with the right mix of procedures, results in better margins.



Seven of the metrics included in this report can be found in national-level databases on hospital performance. We recognize that our own participants may not be a representative cross section of hospitals as a whole. Thus we include Section 3.6, "Summary: U.S. National Benchmarks" to allow for convenient comparisons between the performance reported by our participants and those reported in the national-level data. These national benchmarks are taken, with permission, from the *Almanac of Hospital Financial and Operating Indicators: 2007*, available from [www.ingenixonline.com](http://www.ingenixonline.com).

## 2. Executive Summary

This section reports on what we call Performance Measures. These are the 23 metrics for which it is clear whether higher or lower values constitute better performance. For Lab or Radiology Turnaround Time, for example, lower values are clearly better; instantaneous results would be ideal. For Operating Room Utilization, high values are preferred, and 100% utilization would be best. This is not to say, of course, that every hospital should strive to attain these "best" values, regardless of the impact of doing so on their costs.

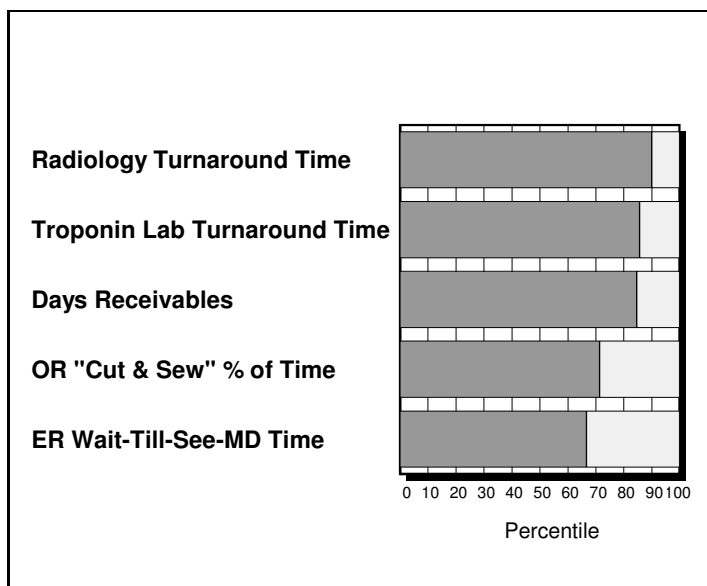
We divide our 23 Performance Measures into five groups:

- 3.1 Business (3 measures)
- 3.2 Productivity (5 measures)
- 3.3 Asset Utilization (5 measures)
- 3.4 Throughput (6 measures)
- 3.5 Clinical Outcomes (4 measures).

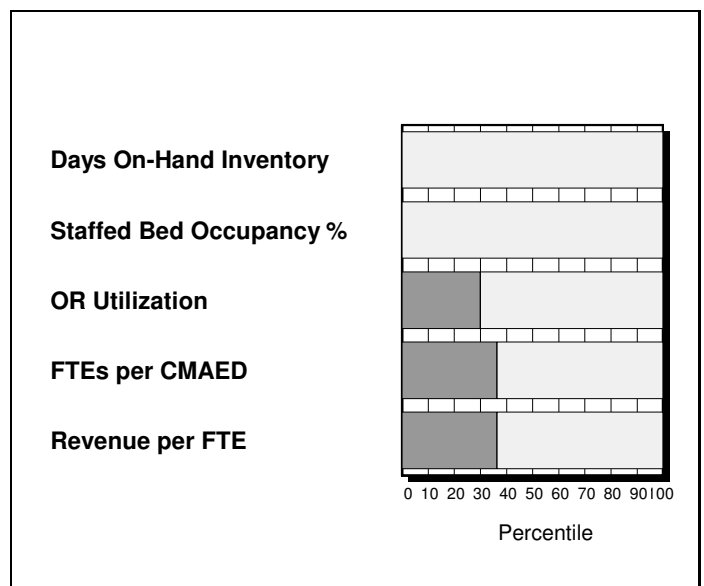
Your hospital's strengths, presented below, are the five measures on which it scored the best relative to other hospitals, and for which it achieved a ranking at least in the top half. That is, if your hospital ranks in the top half on only three measures, then only those three will be reported as strengths. Weaknesses are the (up to) five measures on which your hospital scored the worst relative to others, and on which it ranks in the bottom half.

In the graphs that follow, the length of each bar indicates your hospital's percentile ranking, ranging from 0 (worst in the group) to 100 (best in the group). The longer the bar, the higher its ranking. The actual value you reported for each measure, as well as the values that constitute the cut-offs for the top tenth, top quarter, etc., appear in Appendix 1. Descriptive information about the hospitals being compared can be found in Section 5, Profile of the Comparison Group.

### Strengths



### Weaknesses

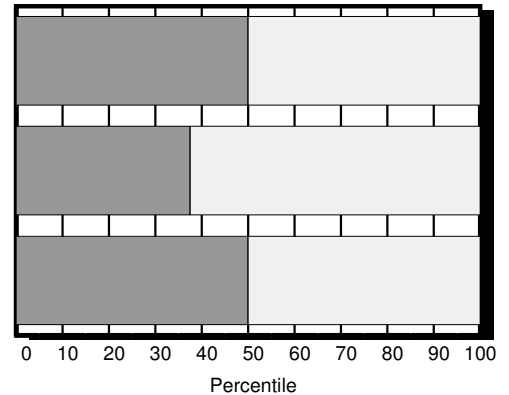


# 3. Performance Measures

## 3.1 Business

Measures of your hospital's general business performance include its operating margin, expense per adjusted discharge, and bad debt expense.

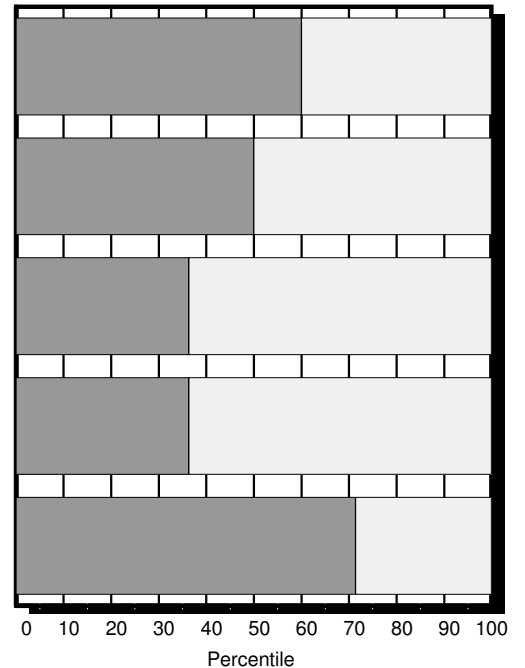
1. Operating Margin (Net Patient Service Revenue Less Expenses as % of NPSR)
2. Dollars of Expenses per Case Mix-Adjusted Equivalent Discharge
3. Bad Debt Expense as a Percent of Net Patient Service Revenue



## 3.2 Productivity

Measures of your hospital's productivity include value-added (defined as net patient service revenue less the cost of purchased supplies, medications, and utilities) per FTE and per adjusted discharge; FTEs per adjusted discharge; revenue per FTE; and the percent of booked operating room time actually used for surgery.

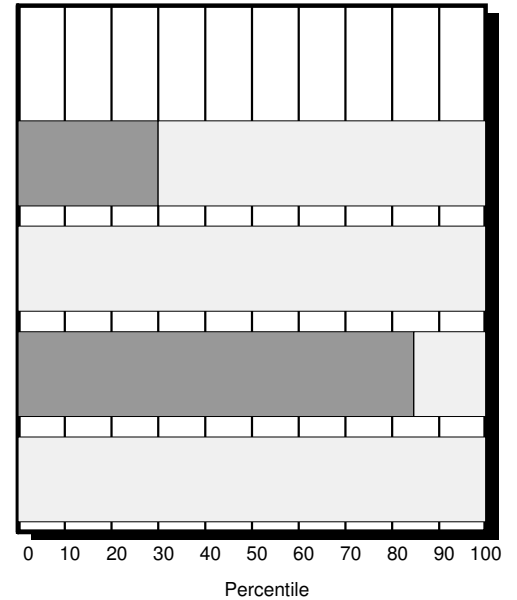
4. Value Added per Full Time Equivalent Employee/Contractor (FTE)
5. Value Added per Case Mix-Adjusted Equivalent Discharge (CMAED)
6. Full-Time Equivalent Employees/Contractors per CMAED
7. Net Patient Service Revenue per Full Time Equivalent Employee/Contractor
8. Operating Room "Cut & Sew" Time as Percent of Booked Time



### 3.3 Asset Utilization

Measures of your hospital's asset utilization performance include value-added per square foot, operating room utilization, bed occupancy, and days of receivables and inventory. Remember that by "value-added" we mean net patient service revenue less the cost of purchased supplies, medications, and utilities.

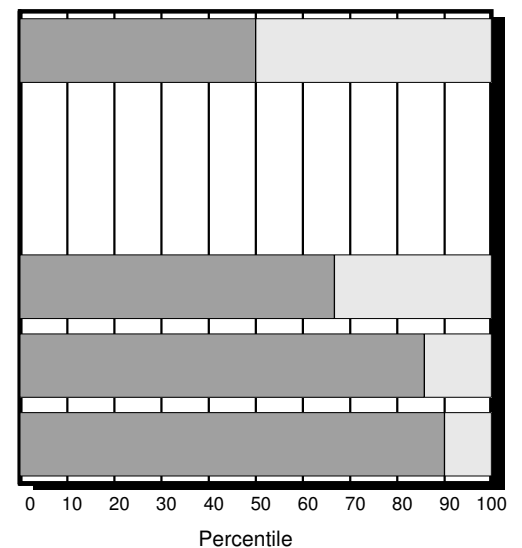
- 9. Value-Added per Square Foot
- 10. OR Utilization -- Avg Booked Procedure Hrs Per Week as % of 24\*7 Total Hrs
- 11. Occupancy Rate, Staffed Beds
- 12. Average Days of Receivables
- 13. Average Days of On-Hand Inventory



### 3.4 Throughput

Measures of your hospital's throughput -- how much patient service it can provide in a given amount of calendar time -- include average length-of-stay, discharges before noon, outpatient door-to-door time, ED door-to-physician time, and average turnaround time for lab tests (troponin test is used to standardize) and radiology image reports.

- 14. Average Length of Stay (Days), Case Mix-Adjusted
- 15. Percent of Discharges Made Before Noon
- 16. Mean Outpatient Door-to-Door Time, in Minutes
- 17. Mean Emergency Dept Door-to-Physician Time, in Minutes
- 18. Mean Troponin Lab Test Turnaround Time, in Minutes
- 19. Mean Radiology Order-to-Transcription-Complete Time, in Hours



## 3.5 Clinical Outcomes

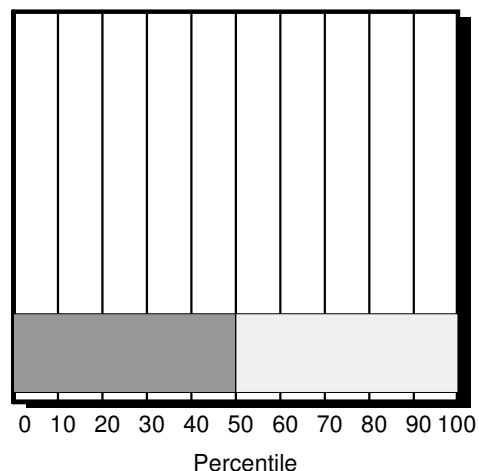
Measures of clinical outcomes include hospital-wide mortality (indexed to state average) and three measures of unscheduled patient returns for unanticipated conditions.

20. Hospital-Wide Mortality Index

21. Percent of Cardiac Patients With Acute Readmission Within 31 Days

22. Percent of Patients with Unscheduled IP Returns to OR within Same Stay

23. Percent of IP Admissions Following Unscheduled Returns to ED w/in 72 Hrs.



## 3.6 Summary: U.S. National Benchmarks

As noted earlier in this report, national data are available for seven of our 37 metrics. Note that only one of our five productivity measures, and just one of our six throughput measures, are available from published sources.

Performance Benchmarking Metric	Distribution, All U.S. Hospitals				
	Top 10%	Top 25%	Median	Bottom 25%	Bottom 10%
1. Operating Margin	11.8%	6.9%	2.9%	-1.1%	-6.3%
2. Expense per CMAED	\$14,700	\$7,600	\$5,700	\$4,800	\$4,200
7. Revenue per FTE	\$164,300	\$143,900	\$123,100	\$102,500	\$ 90,500
11. Occupancy Rate, Staffed Beds	78.1%	69.1%	55.1%	40.5%	25.6%
12. Days Accounts Receivable	39.7	48.6	58.7	73.1	91.9
13. Days On-Hand Inventory	2.32	3.99	6.14	8.24	10.75
14. Adjusted Avg. Length of Stay (Days)	2.37	2.76	3.12	3.66	4.51

Source: Almanac of Hospital Financial and Operating Indicators, 2007, available from [www.ingenixonline.com](http://www.ingenixonline.com)

# 4. Practices

Where Performance Measures are goals, or *ends*, Practices are *means* to those ends. They are metrics on which it is useful to know where your hospital stands compared to others in the comparison group. It is not necessarily good to rank very high or very low if doing so is not required to achieve your goals. Practices include metrics that studies have shown to be good predictors of clinical outcomes, including but not limited to those shown in section 3.5 of this report.

The bars in the charts in this section are drawn relative to the median, or typical, hospital. Bars that extend far to the left show that your hospital's value is near the minimum for the group; bars extending far to the right indicate that your hospital's value is unusually large. You should look for your "outliers" and think carefully about what might be behind them.

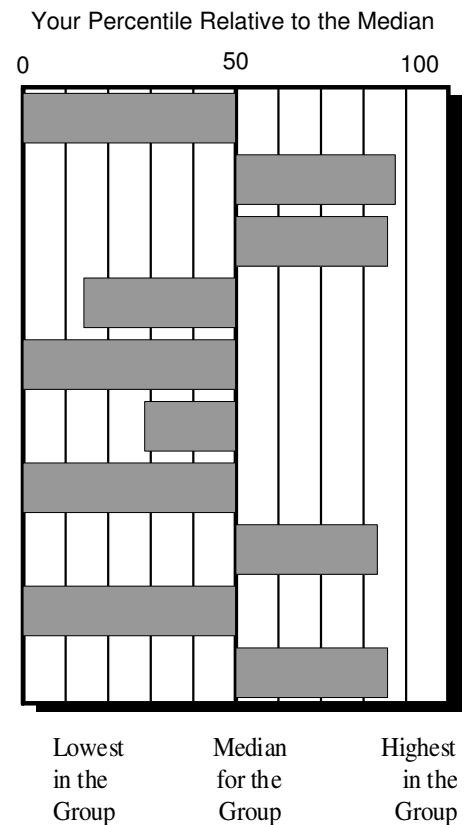
Having *no* bar shown for a particular metric implies either that your hospital's value *is* the median, or that you did not provide the data necessary to calculate its position on the metric. Please see Appendix 2 to see your hospital's value, and the range of values for its comparison group, for each Practice metric.

This section is organized as follows:

- 4.1 Clinical Practices -- AMI, Heart Failure, Pneumonia
- 4.2 Cost Profile
- 4.3 Patient Safety Policies

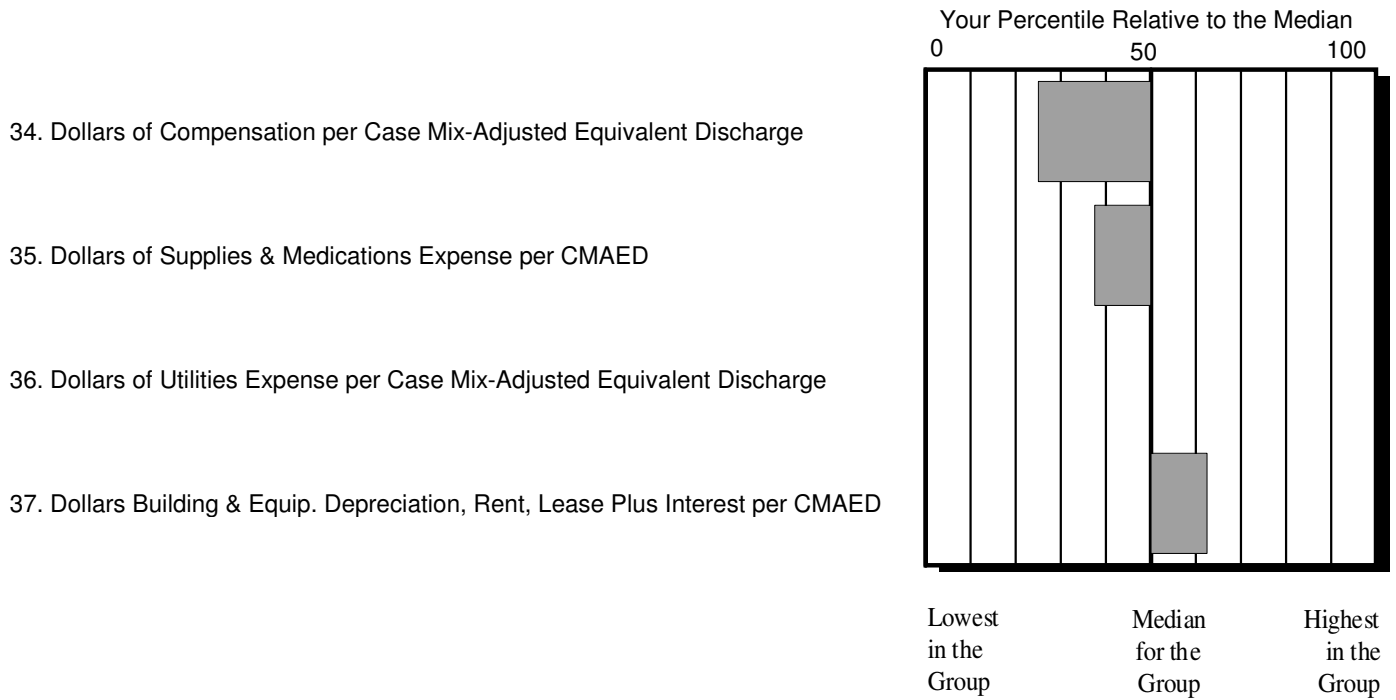
## 4.1 Clinical Practices -- AMI, Heart Failure, Pneumonia

- 24. Percent AMI Patients Receiving Aspirin w/in 24 Hours of Arrival
- 25. Percent AMI Patients Prescribed Aspirin at Discharge
- 26. Percent AMI Patients w/LVSD Prescribed an ACEI or ARB at Discharge
- 27. Percent AMI Patients Prescribed Beta Blocker w/in 24 Hours of Arrival
- 28. Percent AMI Patients Prescribed Beta Blocker at Discharge
- 29. Pct of Heart Failure Patients w/Hospital-Documented Assessment of LVF
- 30. Pct of Heart Failure Patients w/LVSF Prescribed ACEI or ARB at Discharge
- 31. Percent of Pneumonia Patients Receiving Antibiotics w/in 4 Hours of Arrival
- 32. Pct of Unvaccinated Pneumonia Patients Receiving Vaccine During Stay
- 33. Pct Pneumo Patients Having Arterial Oxygen Assessed w/in 24 Hrs of Arrival



## 4.2 Cost Profile

In this section, we show how far your hospital deviates from the median on four significant expense categories.



## 4.3 Patient Safety Policies

These three policies have been found in some research to predict lower-than-average rates of injury and allergic reaction in both patients and hospital staff.

Question Number	Question	Percent Yes	Your Answer
Q. 65	Do you have a no-lift policy? I.e., is it hospital policy to use lifts to raise up patients, in order to avoid staff and patient injury?	50.0%	No
Q. 66	Do you have a needleless policy? I.e., is it hospital policy to administer medications without needles whenever possible?	75.0%	No
Q. 67	Do you have a latex-free policy? I.e., is it hospital policy to keep the facility free of latex supplies, in order to avoid allergic reactions?	75.0%	Yes

## 5. Profile of the Comparison Group

Distribution of Comparison Group Values				
	25% Said At Least	Median	25% Said At or Below	Your Value
Percent of Net Patient Service Revenue Paid by Medicare	55%	48%	45%	46%
Percent of Net Patient Service Revenue Paid by Medicaid	14%	11%	8%	11%
Percent of Net Patient Service Revenue Paid by Other Government	0%	0%	0%	0%
Percent of Net Patient Service Revenue Paid by Commercial Insurers	41%	39%	29%	39%
Percent of Net Patient Service Revenue from Client Self-Pay	10%	7%	3%	4%
Percent of Net Patient Service Revenue from Inpatient Services	58%	50%	37%	33%
Percent of Net Patient Service Revenue from Outpatient Services	63%	52%	38%	66%
Percent of Net Patient Service Revenue from Other Services	15%	4%	0%	1%
Average Daily Inpatient Census	241	196	40	19
Average Daily Outpatient Visits	815	306	223	223
Annual Inpatient Discharges	16,056	9,657	3,555	1,731
All-Payer Case Mix Index (Medicare Weights)	1.2756	1.0930	1.0745	1.0800
Case Mix-Adjusted Equivalent Discharges	31,836	20,491	9,260	5,608
Total Hospital Square Feet (Thousands)	685	420	197	
Staffed Beds, Average	345	300	66	54
Operating Room Suites (Excluding Endoscopy)	10	6	4	2
Full-Time Equivalent Employees/Contractors	2,043	1,012	500	300

# Appendix 1: Distribution of Comparison Group Values on Performance Measures

Measure	Top 10%	Top 25%	Median	Bottom 25%	Bottom 10%
1. Operating Margin (Net Patient Service Revenue Less Expenses as % of NPSR) Your Value: <b>0.7%</b>		2.5%	0.7%	0.1%	
2. Dollars of Expenses per Case Mix-Adjusted Equivalent Discharge Your Value: \$5,896		\$ 5,133	\$ 5,821	\$ 6,312	
3. Bad Debt Expense as a Percent of Net Patient Service Revenue Your Value: <b>4.7%</b>		0.0%	4.7%	5.2%	
4. Value Added per Full Time Equivalent Employee/Contractor (FTE) Your Value: \$80,212		\$ 98,223	\$ 77,571	\$ 70,756	
5. Value Added per Case Mix-Adjusted Equivalent Discharge (CMAED) Your Value: \$4,291		\$ 7,165	\$ 4,291	\$ 3,958	
6. Full-Time Equivalent Employees/Contractors per CMAED Your Value: <b>0.0535</b>		0.0433	0.0490	0.0573	
7. Net Patient Service Revenue per Full Time Equivalent Employee/Contractor Your Value: \$110,964		\$ 138,502	\$ 113,134	\$ 104,826	
8. Operating Room "Cut & Sew" Time as Percent of Booked Time Your Value: <b>79.5%</b>		84.0%	74.0%	54.0%	
9. Value-Added per Square Foot Your Value:		\$ 269	\$ 235	\$ 187	
10. OR Utilization -- Avg Booked Procedure Hrs Per Week as % of 24*7 Total Hrs Your Value: <b>11.3%</b>		23.3%	16.6%	11.3%	
11. Occupancy Rate, Staffed Beds Your Value: <b>35.0%</b>		80.0%	68.5%	64.0%	
12. Average Days of Receivables Your Value: <b>41</b>		42	45	49	

Measure	Top 10%	Top 25%	Median	Bottom 25%	Bottom 10%
13. Average Days of On-Hand Inventory Your Value: <b>85.6</b>		5.2	28.1	29.5	
14. Average Length of Stay (Days), Case Mix-Adjusted Your Value: <b>3.6</b>		3.1	3.6	4.0	
15. Percent of Discharges Made Before Noon Your Value:		41.0%	33.0%	29.0%	
16. Mean Outpatient Door-to-Door Time, in Minutes Your Value:		240	281	360	
17. Mean Emergency Dept Door-to-Physician Time, in Minutes Your Value: <b>32</b>		26	43	45	
18. Mean Troponin Lab Test Turnaround Time, in Minutes Your Value: <b>38</b>		38	40	49	
19. Mean Radiology Order-to-Transcription-Complete Time, in Hours Your Value: <b>1.0</b>		4.8	24.0	36.0	
20. Hospital-Wide Mortality Index Your Value:		Insufficient Data: Percentiles Not Available			
21. Percent of Cardiac Patients With Acute Readmission Within 31 Days Your Value:		0.70%	1.40%	4.50%	
22. Percent of Patients with Unscheduled IP Returns to OR within Same Stay Your Value:		0.20%	0.50%	0.90%	
23. Percent of IP Admissions Following Unscheduled Returns to ED w/in 72 Hrs. Your Value: <b>1.95%</b>		0.40%	2.00%	4.20%	

# Appendix 2: Distribution of Comparison Group Values on Practices

Measure	Highest 10%	Highest 25%	Median	Lowest 25%	Lowest 10%
24. Percent AMI Patients Receiving Aspirin w/in 24 Hours of Arrival Your Value: <b>87.5%</b>		100.0%	99.3%	93.0%	
25. Percent AMI Patients Prescribed Aspirin at Discharge Your Value: <b>100.0%</b>		100.0%	100.0%	97.5%	
26. Percent AMI Patients w/LVSD Prescribed an ACEI or ARB at Discharge Your Value: <b>100.0%</b>		100.0%	100.0%	85.2%	
27. Percent AMI Patients Prescribed Beta Blocker w/in 24 Hours of Arrival Your Value: <b>90.0%</b>		100.0%	98.5%	90.5%	
28. Percent AMI Patients Prescribed Beta Blocker at Discharge Your Value: <b>66.7%</b>		99.1%	96.4%	95.0%	
29. Pct of Heart Failure Patients w/Hospital-Documented Assessment of LVF Your Value: <b>69.8%</b>		97.5%	92.0%	69.8%	
30. Pct of Heart Failure Patients w/LVSF Prescribed ACEI or ARB at Discharge Your Value: <b>61.5%</b>		100.0%	94.1%	90.0%	
31. Percent of Pneumonia Patients Receiving Antibiotics w/in 4 Hours of Arrival Your Value: <b>90.8%</b>		90.8%	85.0%	84.2%	
32. Pct of Unvaccinated Pneumonia Patients Receiving Vaccine During Stay Your Value: <b>4.6%</b>		71.6%	53.7%	36.0%	
33. Pct Pneumo Patients Having Arterial Oxygen Assessed w/in 24 Hrs of Arrival Your Value: <b>100.0%</b>		100.0%	100.0%	100.0%	
34. Dollars of Compensation per Case Mix-Adjusted Equivalent Discharge Your Value: <b>\$3,408</b>		\$ 5,878	\$ 3,591	\$ 3,408	

<b>Measure</b>	<b>Highest 10%</b>	<b>Highest 25%</b>	<b>Median</b>	<b>Lowest 25%</b>	<b>Lowest 10%</b>
35. Dollars of Supplies & Medications Expense per CMAED Your Value: <b>\$808</b>		\$ 2,158	\$ 1,426	\$ 726	
36. Dollars of Utilities Expense per Case Mix-Adjusted Equivalent Discharge Your Value: <b>\$100</b>		\$ 168	\$ 100	\$ 76	
37. Dollars Building & Equip. Depreciation, Rent, Lease Plus Interest per CMAED Your Value: <b>\$566</b>		\$ 754	\$ 398	\$ 339	

# Appendix 3: Formulas

Measure	Formula
1. Operating Margin (Net Patient Service Revenue Less Expenses as % of NPSR)	$(Q14 - Q20) / Q14 * 100$
2. Dollars of Expenses per Case Mix-Adjusted Equivalent Discharge	$Q20 / Q8$
3. Bad Debt Expense as a Percent of Net Patient Service Revenue	$(Q29/100 * Q20) / Q14 * 100$
4. Value Added per Full Time Equivalent Employee/Contractor (FTE)	$(Q14 - Q20/100*(Q23+Q24+Q25+Q26)) / Q48$
5. Value Added per Case Mix-Adjusted Equivalent Discharge (CMAED)	$(Q14 - Q20/100*(Q23+Q24+Q25+Q26)) / Q8$
6. Full-Time Equivalent Employees/Contractors per CMAED	$Q48 / Q8$
7. Net Patient Service Revenue per Full Time Equivalent Employee/Contractor	$Q14 / Q48$
8. Operating Room "Cut & Sew" Time as Percent of Booked Time	Q41
9. Value-Added per Square Foot	$(Q14 - Q20/100*(Q23+Q24+Q25+Q26)) / Q35$
10. OR Utilization -- Avg Booked Procedure Hrs Per Week as % of 24*7 Total Hrs	$(Q40/Q39) / 168 * 100$
11. Occupancy Rate, Staffed Beds	Q38
12. Average Days of Receivables	Q32
13. Average Days of On-Hand Inventory	$(Q30 / (Q20 * (Q23+Q24)/100)) * 365$
14. Average Length of Stay (Days), Case Mix-Adjusted	Q43
15. Percent of Discharges Made Before Noon	Q50
16. Mean Outpatient Door-to-Door Time, in Minutes	Q45
17. Mean Emergency Dept Door-to-Physician Time, in Minutes	Q44

Measure	Formula
18. Mean Troponin Lab Test Turnaround Time, in Minutes	Q46
19. Mean Radiology Order-to-Transcription-Complete Time, in Hours	Q47
20. Hospital-Wide Mortality Index	Q51
21. Percent of Cardiac Patients With Acute Readmission Within 31 Days	Q53
22. Percent of Patients with Unscheduled IP Returns to OR within Same Stay	Q54
23. Percent of IP Admissions Following Unscheduled Returns to ED w/in 72 Hrs.	Q52
24. Percent AMI Patients Receiving Aspirin w/in 24 Hours of Arrival	Q55
25. Percent AMI Patients Prescribed Aspirin at Discharge	Q56
26. Percent AMI Patients w/LVSD Prescribed an ACEI or ARB at Discharge	Q57
27. Percent AMI Patients Prescribed Beta Blocker w/in 24 Hours of Arrival	Q58
28. Percent AMI Patients Prescribed Beta Blocker at Discharge	Q59
29. Pct of Heart Failure Patients w/Hospital-Documented Assessment of LVF	Q60
30. Pct of Heart Failure Patients w/LVSF Prescribed ACEI or ARB at Discharge	Q61
31. Percent of Pneumonia Patients Receiving Antibiotics w/in 4 Hours of Arrival	Q62
32. Pct of Unvaccinated Pneumonia Patients Receiving Vaccine During Stay	Q63
33. Pct Pnemo Patients Having Arterial Oxygen Assessed w/in 24 Hrs of Arrival	Q64
34. Dollars of Compensation per Case Mix-Adjusted Equivalent Discharge	$((Q21+Q22)/100 * Q20) / Q8$
35. Dollars of Supplies & Medications Expense per CMAED	$((Q23+Q24)/100 * Q20) / Q8$
36. Dollars of Utilities Expense per Case Mix-Adjusted Equivalent Discharge	$(Q25/100 * Q20) / Q8$
37. Dollars Building & Equip. Depreciation, Rent, Lease Plus Interest per CMAED	$((Q27+Q28)/100 * Q20) / Q8$