The Seventh Annual HealthGrades Hospital Quality in America Study

Is Geography Our Health Destiny?







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Executive Summary

Since 1998, HealthGrades has studied the quality of care at the nation's nearly 5,000 hospitals and published the results of its annual research on the Web to assist consumers in choosing a hospital. For the first part of this study, the Seventh Annual HealthGrades Hospital Quality in America Study analyzed the most recent three years of risk-adjusted mortality and complication rates available and provides each hospital with a one-, three- or five-star quality rating for each of more than 25 procedures and diagnoses, from heart attack to knee replacement to pneumonia.

This study shows considerable differences in quality among the nation's hospitals. Results of the seventh annual study are available at www.healthgrades.com.

For the second part of this study, HealthGrades analyzed the quality of hospital care for the 25 most heavily populated metropolitan statistical areas (MSAs) [including consolidated metropolitan statistical areas (CMSAs)]¹. This analysis, comparing risk-adjusted mortality rates for Medicare patients from 2000 to 2003, found that inhospital mortality rates have declined significantly, although the degree of quality improvement varied significantly by metropolitan areas across cardiac diagnoses and procedures and the treatment of pneumonia. The diagnoses and procedures covered by this study include:

- Coronary Artery Bypass Graft Surgery (CABG)
- Percutaneous Coronary Intervention (PCI)
- Acute Myocardial Infarction (AMI) Heart Attack
- Congestive Heart Failure (CHF)
- Community Acquired Pneumonia (CAP)

Key findings of this study include:

- 1. Consistent with previous findings that processes of care are improving^{2,3}, we found that overall U.S. mortality rates associated with cardiac disease related hospitalizations and community acquired pneumonia hospitalizations decreased significantly from 2000 to 2003, with an average overall U.S. improvement in survival rates of 18.2 percent. Nonetheless, we continue to find substantial differences in outcomes between hospitals and, at an aggregate level, between metropolitan areas. Generally, better overall performance in 2003 was associated with the significant overall performance improvement from 2000 to 2003. See Tables 1 and 2.
- 2. All 25 metropolitan areas experienced statistically significant (p < 0.05) reductions in inhospital mortality rates in acute myocardial infarction (AMI)/Heart Attack, congestive

heart failure (CHF) and community acquired pneumonia (CAP). These quality improvements are probably largely attributable to the national focus on implementing and adhering to best-practice clinical processes, such as timely intervention and administration of aspirin and beta-blocker on arrival to the emergency room, and improved medications and technology for the treatment of AMI.

- 3. The greatest performance improvement across all metropolitan areas combined was associated with coronary artery bypass graft (CABG) surgery. Americans 65 and over now have, on average, a 21 percent better chance of surviving the surgical hospitalization as compared to 2000. This improvement in survival rates varied widely depending on the metropolitan area; the risk-adjusted mortality rate fell significantly in some areas while it actually rose in other metropolitan areas between 2000 and 2003. For example, after appropriate risk-adjustment for patient characteristics such as age and other illnesses, CABG patients in the Cincinnati area had a 34 percent higher mortality rate while CABG patients in the San Diego MSA had a 58 percent lower mortality rate in 2003 compared to 2000. This trend towards poorer quality over time (*p* = 0.07) translated to more than twice the chance of dying from CABG surgery performed in Cincinnati as compared to CABG surgery performed in San Diego in 2003. See Table 1.
- 4. Most likely because of the focus during the last few years on improving processes of care around AMI patients, this diagnosis was associated with the least variation in outcome across the 25 metropolitan areas studied in 2003. Nonetheless, the degree of inhospital mortality improvement by areas still varied significantly from three percent improvement in the Sacramento area compared to a 26 percent improvement in the Phoenix area. This notable gap in improvement translates to a 31 percent higher chance of dying during an AMI/Heart Attack hospitalization in the Sacramento area compared to the Phoenix area in 2003. See Table 3.
- 5. The top five metropolitan areas for overall quality performance Cleveland, Detroit, Minneapolis, Phoenix, and Tampa consistently performed in the top two quintiles on all of the procedures and diagnoses studied in 2003. Many 5-star rated hospitals contributed significantly to the aggregate performance of these top metropolitan area performers. A few of these hospitals include, but are not limited to: **University Hospitals of Cleveland**, **Cleveland Clinic**, **Henry Ford Hospital**, **Abbott Northwestern**, **Mayo Clinic-Phoenix**, **and Morton Plant Hospital**. The bottom five metropolitan areas for overall quality performance Portland, Seattle, Philadelphia, San Francisco, and Dallas consistently performed in the bottom two quintiles on most of the five diagnoses and procedures studied in 2003.
- 6. The greatest overall performance improvements from 2000 to 2003 among the 25 areas—Phoenix, Detroit, Cleveland, Houston, and St. Louis were associated with better overall quality performance in 2003, with performances ranking in the top two quintiles across most of the diagnoses and procedures evaluated.

Introduction

During the past six years, HealthGrades' research on hospital quality has consistently found significant variation in the quality of care provided by the nation's hospitals. HealthGrades' star ratings tell consumers whether a particular hospital has performed "best," "as expected" or "poor" on a particular procedure or diagnosis. Hospital ratings are based on patient outcomes, specifically, risk-adjusted mortality or complications. Because no two hospitals or their patients' risk profiles are alike, HealthGrades has developed extensive risk-adjustment algorithms to ensure that it is making fair, apples-to-apples comparisons.

Consumers are becoming increasingly knowledgeable about quality differences among hospitals and are using quality data to make better informed health care choices. In a study conducted by Opinion Research Corporation in 2003, 40% of respondents that were either hospitalized themselves or had a family member hospitalized and did not use an ambulance, said they considered the hospital's quality rating (awards, honors, or recognition for top quality) when making their hospital choice. The primary goal of the study was to give the consumer hospital quality information and to identify broad trends in quality of care nationwide. HealthGrades' Web site has over 1,000,000 unique users per month and provides quality ratings to over 15 million people via its subscription-based sites that are available through over 125 employers and payers.

Several studies have consistently demonstrated persistent hospital quality gaps^{2,3,4,5}, including unexpected mortality and complications from suboptimal processes of care, medical errors and racial disparities. As a result of the identification of this well known and well publicized "quality chasm," national efforts have focused on the substantial opportunity for improvement in the effectiveness of care. These same studies indicate that while medicine still has a long way to go, adherence with standards of practice is improving. To our knowledge, this is the first study to evaluate the improvement in outcomes over a four-year period, a time when public reporting of standards of practice grew significantly.

As a part of HealthGrades' quality information mission, we provided an appendix with multiple quality metrics for each of the 25 metropolitan areas studied. This appendix includes actual mortality rates, risk-adjusted mortality rates, hospital charges and length of stay (LOS), the JCAHO/CMS process of care measures with benchmarks, and The Leapfrog Group measures. Although some of this data was not used in this study analysis, this appendix provides additional quality information for each of the 25 metropolitan areas studied.

Methods

Part I: The Seventh Annual Hospital Quality Ratings Methods

HealthGrades rated nearly 5,000 hospitals in the following categories (ratings available at www.healthgrades.com):

- 1. Acute Myocardial Infarction
- 2. Aspiration Pneumonia
- 3. Atrial Fibrillation
- 4. Back and Neck Surgery (except Spinal Fusion)
- 5. Back and Neck Surgery (Spinal Fusion)
- 6. Bowel Obstruction
- 7. Carotid Endarterectomy
- 8. Cholecystectomy (gallbladder surgery)
- 9. Chronic Obstructive Pulmonary Disease
- 10. Community Acquired Pneumonia
- 11. Congestive Heart Failure
- 12. Coronary Bypass Surgery
- 13. Gastrointestinal (GI) Bleed
- 14. GI Procedures and Surgeries
- 15. Hip Fracture Repair
- 16. Pancreatitis

- 17. Partial Hip Replacement
- 18. Percutaneous Coronary Intervention (PTCA/Angioplasty, Stent, Atherectomy)
- 19. Peripheral Vascular Bypass
- 20. Prostatectomy
- 21. Pulmonary Embolus
- 22. Respiratory Failure
- 23. Resection/Replacement of Abdominal Aorta
- 24. Sepsis
- 25. Stroke
- 26. Total Hip Replacement
- 27. Total Knee Replacement
- 28. Valve Replacement Surgery

Data Acquisition

HealthGrades used MedPAR data for 2001 – 2003 to perform the first part of this study. The MedPAR data was selected for several reasons. First, it included virtually every hospital in the country, with the exception of military and Veterans Administration hospitals. Second, hospitals were required by law to submit complete and accurate information with substantial penalties for those that report inaccurate or incomplete data. Third, the Medicare population represented a majority of the patients for all of the clinical categories studied, with approximately 55% to 60% of all cardiac patients and 75% to 80% of all joint replacement surgeries, for example.

To preserve the integrity of the ratings, HealthGrades conducted a series of data quality checks. Based on the results of these checks, we excluded a limited number of cases because they were inappropriate for inclusion in the database or miscoded. Examples of excluded patient records were:

- Patients under the age of 65.
- Patients who left the hospital against medical advice or who were transferred to another acute care hospital.
- Patients discharged alive with a length of stay equal to or less than one day for Coronary Artery Bypass Graft Surgery, Valve Replacement Surgery, Aspiration Pneumonia, Stroke, Resection/Replacement of Abdominal Aorta, Hip Fracture Repair (ORIF), Partial Hip Replacement, Total Knee Replacement, Total Hip Replacement, and Sepsis.
- Patients who were still in the hospital when the Medicare claim was filed.
- Patients with an invalid gender.

Data Analysis

All data on the HealthGrades Web site represent three years of patient discharges (2001-2003). In the initial analysis of the data, a separate data set was created for each group of patients having a specific procedure or diagnosis based on ICD-9-CM coding (e.g., coronary bypass surgery, total hip replacement). Each group of patients was defined by using the information on diagnoses and procedures coded in the patient records. Refer to www.healthgrades.com for a full list of the diagnosis and procedure codes that define each patient cohort. The quality measure for some cohorts was mortality; whereas, for other cohorts, the quality measure was major complications.

For each patient cohort, we developed a list of specific procedures (e.g., quadruple bypass surgery), a list of risk factors, and a list of post-surgical complications. These latter two lists were developed in two steps:

- (1) We identified all diagnoses occurring in more than 1% of the patients for the current analysis and the previous analysis.
- (2) We used a team of clinical and coding experts to identify the complications in the list created in Step One.

Some diagnosis codes were merged together (e.g., primary and secondary pulmonary hypertension) to minimize the impact of coding variations.

Outcomes were binary, with documented major/minor complications either present or not, and patients recorded as either alive or expired. Refer to www.healthgrades.com for a list of complications included in the quality measure "Major Complications." In cohorts where the quality measure is major complications, mortality is considered a major complication.

Risk-Adjustment Methodology

The purpose of risk-adjustment is to obtain fair statistical comparisons between disparate populations or groups. Significant differences in demographic and clinical risk factors are found among patients treated in different hospitals. Risk-adjustment of the data is needed to make accurate and valid comparisons of clinical outcomes at different hospitals.

Fair and valid comparisons between hospital providers can be made only to the extent that the risk-adjustment methodology considers important differences in patient demographic and clinical characteristics. The risk-adjustment methodology used by HealthGrades defines risk factors as those clinical and demographic variables that influence patient outcomes in significant and systematic ways. Risk factors may include age, sex, specific procedure performed, and comorbid conditions such as hypertension, chronic renal failure, congestive heart failure, and diabetes. The methodology is disease-specific and outcome-specific. This means that individual risk models are constructed and tailored for each clinical condition or procedure, and also for each outcome.

Developing the HealthGrades ratings involved four steps for each cohort (e.g., coronary bypass surgery) and quality measure (e.g., inhospital mortality). First, the predicted value (e.g., predicted mortality) was obtained using logistic regression models discussed in the next section. Second, the predicted value was compared with the actual, or observed, value (e.g., actual mortality). Third, a test was conducted to determine whether the difference between the predicted and actual/observed values was statistically significant. This test was performed to make sure that differences were very unlikely to be caused by chance alone. Fourth, a star rating was assigned based upon the outcome of the statistical test.

Statistical Models

Unique statistical models were developed for each patient cohort and each outcome using multivariate logistic regression.

Comorbid diagnoses (e.g., hypertension, chronic renal failure, anemia, diabetes), demographic characteristics (e.g., age and sex), and specific procedures (where relevant) were classified as potential risk factors. We used multivariate logistic regression to determine which of these were actually risk factors and to what extent they were correlated with the quality measure (e.g., mortality). A risk factor stayed in the model if it had a positive coefficient and was also

statistically significant (p<0.05) in explaining variation. Complications were *not* counted as risk factors as they were considered a result of care received during the admission.

The statistical models were checked for validity and finalized. All of the models were highly significant, with C-statistics ranging from ~ 0.6 to ~ 0.9. These cohort and outcome specific models were then used to estimate the probability of the outcome for each patient in the cohort. Patients were then aggregated for each hospital to obtain the predicted outcome for each hospital. Statistical significance tests were performed to identify, by hospital, whether the actual/observed and predicted rates were significantly different. We used a binomial distribution to establish an approximate 90% confidence interval. To test the fit of a binomial distribution to the data, we performed tests on each model for 20% of the hospitals whereby we included statistical significance, for each hospital individually, as an independent variable in the logistic regression model. We subsequently used a two-tailed z-test to again determine statistical significance. The match between the binomial distribution results and the test sample within the logistic regression models themselves was nearly 100%.

Assignment of Star Ratings

The following rating system was applied to the data for all procedures and diagnoses:



Actual performance was better than predicted and the difference was statistically significant.



Actual performance was not significantly different from what was predicted, or "as expected".



Actual performance was worse than predicted and the difference was statistically significant.

In general, 70% to 80% of hospitals in each procedure/diagnosis are classified as three stars, with actual results statistically the same as predicted results. Approximately 10% to 15% were one-star hospitals and 10% to 15% were five-star hospitals. The data fell out in a fairly well structured bell shaped curve.

Part II: Metropolitan Statistical Area (MSA)¹ Performance Study Methods

The purpose of the second part of the study was to evaluate the performance of the 25 most heavily populated metropolitan statistical areas (MSA or Consolidated MSA-CMSA) by measuring the outcomes of five key procedures and diagnoses. We used the Office of Management and Budget (OMB) definition of metropolitan and micropolitan statistical areas. Currently defined metropolitan and micropolitan statistical areas are based on application of the 2000 standards (which appeared in the *Federal Register* on December 27, 2000) to Census 2000 data and were announced by OMB effective June 6, 2003¹.

Risk-adjusted outcomes performance (inhospital mortality) was calculated by MSA (metropolitan area) for each of the following five procedures and diagnoses in 2000 and 2003: Coronary Artery Bypass Graft surgery (CABG), Percutaneous Coronary Interventions (PCI), Acute Myocardial Infarction (AMI)/Heart Attack in angioplasty-capable hospitals, Congestive Heart Failure (CHF) and Community Acquired Pneumonia (CAP). These five procedures and diagnoses were chosen because they rank highly among the most common reasons for hospital admission among Medicare beneficiaries and because they represent some of the most studied procedures and diagnoses for quality improvement.

Using the MedPAR 2000 and 2003 data and the risk-adjustment methodology discussed in the last section, HealthGrades calculated for each of the five procedures/diagnoses the actual (observed) and predicted (expected) number of deaths nationally and by MSA. A ratio of observed (O) to expected (E) deaths was then calculated for each MSA for each cohort. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

These MSA performance ratios were then rank ordered for each procedure/diagnosis in ascending order of their respective O/E ratio (lowest to highest). Finally, the average of the five cohort ranks for each MSA was calculated and then the MSAs were arranged in ascending order according to their average final rank. When ties occurred among the averaged ranks, MSA total cohort volume was used to break the tie. Using hospital zip codes that were within the definition of each MSA, we calculated MSA volume by totaling all hospital volume within each MSA for each of the five cohorts. "Best" was defined as the five MSAs with the highest average final rank.

MSAs were also rank ordered by their degree of relative improvement from 2000 to 2003 by procedure/diagnosis. Then the average of the five procedure/diagnosis improvement ranks for each MSA was calculated and the MSAs were arranged in ascending order according to their average final rank. Ties did not occur among these averaged ranks. Using Fisher's exact test, statistical significance for improvement from 2000 to 2003 was determined at the national and MSA levels.

Results

Part I: Hospital Quality Ratings

HealthGrades' ratings of nearly 5,000 hospitals, based on the *Seventh Annual HealthGrades Hospital Quality in America Study*, can be found at www.healthgrades.com. For all of the specific procedures and diagnoses rated, 10-15 percent of hospitals stand out as "best" performers (5 star rated), while another 10-15 percent stand out as "poor" performers (1 star rated). The remaining hospitals are "as expected" (3 star rated). Past studies done by HealthGrades showed that a substantial number of lives could be saved if Americans simply did not go to hospitals rated as "1 star."

Part II: MSA Performance Study

The total number of Medicare hospitalizations for the five procedures and diagnoses among the 25 metropolitan areas studied increased by 12.5 percent from 2000 to 2003 (see Figure 1). The major contributors of this increase were hospitalizations for percutaneous coronary interventions (PCI), AMI/Heart Attack and CHF. The remaining two cohorts studied, coronary artery bypass surgery (CABG) and community acquired pneumonia (CAP) saw a decrease in the number of hospitalizations. While CABG surgery volume declined almost 13 percent, percutaneous coronary intervention (PCI) hospitalizations increased by almost 27 percent during the same four- year time period, representing the shift in interventional treatment of coronary artery disease away from major cardiothoracic surgery to a less-invasive, catheter-based treatment and possibly earlier detection of underlying cardiac risk factors and subsequent disease detection.

Despite the fact that 550,000 new congestive heart failure (CHF) diagnoses are made each year in the United States⁶, hospitalizations associated with this diagnosis rose only slightly (~ 5 percent) between 2000 and 2003. This likely represents both advances in effective outpatient-based pharmaceuticals and management, and the diffusion and adoption of best-practice processes, such as use of ACE inhibitors for left ventricular systolic dysfunction, that minimize the frequency of CHF decompensations that require hospitalization and improve survival.

Of the total five cohorts evaluated in this study, CHF was associated with the largest percentage of all Medicare hospitalizations in both 2000 and 2003 while CABG represented the least (see Figure 2). Most worthy to note is that the hospitalization rates of Acute Myocardial Infarction (AMI/Heart Attack have not changed, remaining steady at 4.6 percent. This possibly represents the widespread adoption of best-practice processes such as aspirin, beta-blocker and statin use that decrease risk of future heart attacks and subsequent hospitalization and improved survival.

Table 1 illustrates the 2000 and 2003 risk-adjusted inhospital mortality performance rank for each procedure/diagnosis and the overall rank for the aggregate performance of the five cohorts evaluated in each metropolitan area. Table 1 clearly highlights both the overall improvement in survival associated with Medicare hospitalizations for cardiac disease and pneumonia as well as the substantial variation in regional performance, consistent with numerous studies. The survival

improvement seen in Tables 1-3 correlates with the shift from major surgery to less invasive technology that is associated with lower inhospital complications and risk of death. Also, better processes of care and improved outpatient management of CHF and CAP have resulted in the decreased need for hospitalization seen in Figures 1 and 2.

While the patient population risk of mortality, which is dependent on patient medical conditions and demographics, for these five procedures and diagnoses for the U.S. and the 25 metropolitan areas studied did not change appreciably from 2000 to 2003, the respective actual mortalities changed significantly (see Table 2). This overall decline in risk-adjusted mortality over the four years studied was likely due to factors not related to patient characteristics and complexity, but to improvements in the effectiveness and quality of care. This includes things such as improved adoption and diffusion of evidence-based pharmaceuticals and practice, emergence and adoption of new and less invasive technologies, and more timely intervention with proven therapies. It is important to note, however, that despite this overall improvement, the risk-adjusted mortality and degree of improvement varied significantly from hospital to hospital and from metropolitan area to metropolitan area.

Table 3 shows that the greatest variation in outcomes was observed in the metropolitan statistical area performance of coronary artery bypass graft surgery (CABG). This may be reflective of the growth and competition of open-heart hospitals during this time period and associated lower CABG volume per hospital resulting in higher likelihood of variation in both processes and outcomes. Numerous studies have shown a correlation between higher volume and better outcomes in CABG^{7,8,9,10,11}. After accounting for patient severity of illness and other medical conditions in the risk-adjustment process, hospitals in Cincinnati, the relatively "worst" CABG quality performance metropolitan area, also experienced the least CABG performance improvement of the 25 areas studied [Cincinnati CABG risk-adjusted mortality rate in 2000 and 2003 not statistically significantly different (p = 0.07), but trend toward worsening]. This trend towards poorer quality was associated with twice the associated inhospital mortality compared to San Diego, the relatively "best" CABG quality performance MSA [observed mortality: expected mortality ratio (O/E) of 1.40, 0.65, respectively] in 2003. San Diego open-heart hospitals experienced the greatest performance improvement in CABG inhospital mortality from 2000 to 2003. San Diego hospitals' quality improvement efforts resulted in a decrease of their CABG risk-adjusted mortality by more than half in just four years.

Similar to our findings in the *Sixth Annual HealthGrades Hospital Quality in America Study*¹², the smallest difference in outcomes between metropolitan areas was observed in AMI. However, while the performance variation for AMI was indeed the narrowest among the five cohorts studied, this gap is still substantial and has not diminished appreciably since 2000.

For example, although hospital in the NYC Metro area realized improved AMI inhospital treatment outcomes, their inhospital mortality associated with AMI in 2003 was still one-and ahalf times higher than that of hospitals in the Denver Metro area – the "best performing" AMI metropolitan area [observed mortality:expected mortality ratio (O/E) of 1.04, 0.70, respectively]. This was consistent with our previous findings.

It is clear that many of the top metropolitan area performers in AMI experienced significant improvements from 2000 to 2003. In the case of the Denver Metro area, which ranked first in 2003 (also "best" in 2000-data not shown), leading AMI quality performance is likely explained by relatively lower hospital variation in utilizing "best-practices," resulting in consistent and superior outcomes over time.

Interpretation of Results

Despite previously documented improvement in compliance with evidence-based medicine with many of these procedures and diagnoses², this study shows that there is significant variation in the quality of care delivered by different hospitals and, at the aggregate level, in different large metropolitan areas.

The improvements seen between 2000 and 2003 were due to statistically significant decreases in actual mortality, while expected mortality, or patient risk, remained relatively unchanged. These decreases are likely attributable to improved processes of care, consistent with the national focus for several years on these practice issues and, most recently, their associated public reporting.

The greatest disparity in performance noted in CABG may be due to several important and concerning factors: 1) advances in coronary artery disease have shifted patients from major cardiothoracic surgery to less invasive catheter-based angioplasty with improved treatments to prevent early and late restenosis and decrease the risk of requiring future intervention, including surgery; 2) while less invasive treatment is now much more often warranted, the untoward consequence is declining CABG volumes, which will result in less volume per hospital, per surgeon, and thus less opportunity for providers to find their best-practices and more opportunity for variations and failures; 3) without alternative training methods (e.g. virtual surgery), declining volumes will also negatively affect cardiothoracic surgery training and subsequent experience with this high-risk surgery upon entering the physician workforce. To minimize the potentially adverse consequences of declining CABG volume, policy makers may propel evidence-based referral from concept to reality. The potential effects of decreased access will need to be weighed against its benefits.

In contrast to CABG, AMI performance across the nation was associated with the least variation between metropolitan areas. This narrowing quality gap may be due to several encouraging factors: 1) the treatment of AMI has seen the most significant attention to and improvements in the processes of care of any diagnosis or procedure affecting Medicare beneficiaries; 2) considerable consensus among physicians on the recommended management guidelines for AMI; 3) influential and important media coverage around various aspects of AMI has increased patient awareness; and, 4) advances in technology supporting the identification and treatment of AMI. There is considerable opportunity to immediately translate and incorporate physician consensus, public reporting and accountability, and public awareness into other quality improvement areas to achieve similar results.

In conclusion, although important advances and improvements have been and continue to be made, these stark national and metropolitan-level trends highlight continued quality gaps

amongst all five procedures and diagnoses studied. Our findings underscore the urgency to understand the systems that create good outcomes, remove road blocks to successful change, hold providers and payers accountable to make information transparent and useful for improvement, and identify methods to leap forward and close the quality chasm by reducing preventable morbidity and mortality.

With the support and leadership of credible and experienced quality improvement organizations and the continued improvement in processes of care, it is hopeful that the adoption and diffusion of best practices will occur more quickly than it has historically, resulting in decreased variation in and subsequent improved outcomes for all patients. Physicians have been and will continue to be charged with leading this needed paradigm shift. As multitudes of organizations, from payers to employers, choose to pay for quality, physicians will have incentives to lead successful quality improvement in their hospitals that will uniformly close the quality gaps. Until then, geography may be our health destiny.

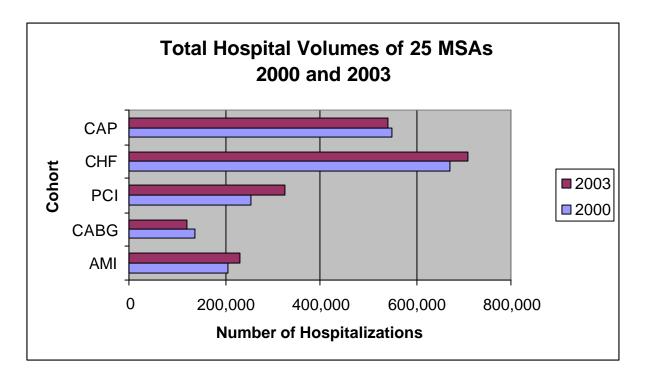
Limitations of the Data Models

These models are limited by the following factors:

- Cases may have been coded incorrectly or incompletely by the hospital.
- The models can only account for risk factors that are coded into the billing data if a particular risk factor was not coded into the billing data, such as a patient's socioeconomic status and health behavior, then it was not accounted for with these models.
- Although Health Grades, Inc. has taken steps to carefully compile these data using its proprietary methodology, no techniques are infallible, and therefore some information may be missing, outdated, or incorrect.

Second, ranking ties occurred because of taking the average of rank numbers, which were represented as whole numbers. This created a few ties, which were then broken by evaluating metropolitan statistical area (MSA) volume; the higher-volume MSA was better ranked. Although there have been many studies correlating volume and outcome, we acknowledge the limitations of this method to accurately differentiate performance between two MSAs with the same average rank.

Figure 1

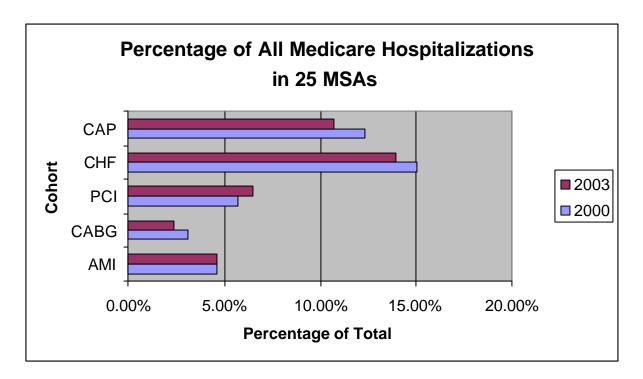


Data Table

	Total Hospital Volumes of 25 MSAs by Cohort and Year											
	AMI CABG PCI CHF CAP All Hospitali											
2000	205,610	137,836	256,387	670,556	550,776	4,463,726						
2003	233,435	120,129	324,648	701,778	540,670	5,021,419						
% Change	13.53%	-12.85%	26.62%	4.66%	-1.83%	12.49%						

AMI = Acute Myocardial Infarction or Heart Attack
CABG = Coronary Artery Bypass Graft Surgery
PCI = Percutaneous Coronary Intervention or Coronary Angioplasty
CHF = Congestive Heart Failure
CAP = Community Acquired Pneumonia

Figure 2



Data Table

% of	% of All Medicare Hospitalizations Among 25 MSAs										
	AMI CABG PCI CHF CAP										
2000	4.61%	3.09%	5.74%	15.02%	12.34%						
2003	4.65%	2.39%	6.47%	13.98%	10.77%						
% Change	0.92%	-22.52%	12.56%	-6.96%	-12.73%						

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Table 1

2003 Ranked Quality Performance by Metropolitan Statistical Area (MSA)												
	Overall		AMI		CABG		PCI		CHF		CAP	
	Performance	Pei	Performance		Performance		Performance		Performance		Performance	
Metropolitan Statistical Area	Overall Rank	Rank	Improvement from 2000									
US Average	-	-	Yes									
Atlanta, GA	14	9	Yes	22	Yes	8	Yes	17	Yes	18	Yes	
Boston-Worcester-Lawrence-Lowell- Brockton, MA-NH	18	12	Yes	13	No	19	Yes	19	Yes	23	Yes	
Chicago-Gary-Kenosha, IL-IN-WI	8	8	Yes	5	Yes	15	Yes	8	Yes	11	Yes	
Cincinnati-Hamilton, OH-KY-IN	7	5	Yes	25	No	9	Yes	4	Yes	1	Yes	
Cleveland-Akron, OH	1	4	Yes	11	Yes	1	Yes	2	Yes	3	Yes	
Dallas-Fort Worth, TX	21	22	Yes	23	Yes	21	Yes	10	Yes	16	Yes	
Denver-Boulder-Greeley, CO	6	2	Yes	12	Yes	12	Yes	1	Yes	8	Yes	
Detroit-Ann Arbor-Flint, MI	2	7	Yes	3	Yes	3	Yes	6	Yes	6	Yes	
Houston-Galveston-Brazoria, TX	15	15	Yes	17	Yes	20	Yes	13	Yes	13	Yes	
Kansas City, MO-KS	19	13	Yes	15	Yes	24	No	20	Yes	14	Yes	
Los Angeles-Riverside-Orange												
County, CA	10	10	Yes	7	Yes	7	Yes	15	Yes	17	Yes	
Miami-Fort Lauderdale, FL	9	11	Yes	24	No	5	Yes	5	Yes	4	Yes	
Minneapolis-St. Paul, MN-WI	3	1	Yes	4	Yes	10	Yes	7	Yes	5	Yes	
New York-Northern New Jersey-Long Island, NY-NJ-CT-PA	17	25	Yes	9	Yes	2	Yes	24	Yes	25	Yes	
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	23	24	Yes	10	Yes	22	No	18	Yes	21	Yes	
Phoenix-Mesa, AZ	4	3	Yes	19	Yes	6	Yes	3	Yes	2	Yes	
Pittsburgh, PA	16	21	Yes	2	Yes	23	Yes	14	Yes	19	Yes	
Portland-Salem, OR-WA	25	20	Yes	14	Yes	17	Yes	25	Yes	22	Yes	
Sacramento-Yolo, CA	20	23	Yes	6	No	13	No	21	Yes	24	Yes	
San Diego, CA	11	16	Yes	1	Yes	18	Yes	16	Yes	10	Yes	
San Francisco-Oakland-San Jose, CA	22	18	Yes	16	Yes	16	Yes	23	Yes	20	Yes	
Seattle-Tacoma-Bremerton, WA	24	17	Yes	18	Yes	25	Yes	22	Yes	15	Yes	
St. Louis, MO-IL	13	19	Yes	21	Yes	11	Yes	12	Yes	9	Yes	
Tampa-St. Petersburg-Clearwater, FL	5	6	Yes	8	Yes	4	Yes	9	Yes	7	Yes	
Washington-Baltimore, DC-MD-VA-WV	12	14	Yes	20	Yes	14	Yes	11	Yes	12	Yes	

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Table 2

	Mortality Performance Improvement Over Time											
Ī		Al	MI	CA	BG	P	CI	CI	I F	C	√P	
		Observed	Predicted	Observed	Predicted	Observed	Predicted	Observed	Predicted	Observed	Predicted	
		Mortality	Mortality	Mortality								
ĺ	2000	12.57%	11.26%	3.68%	3.19%	2.26%	1.98%	5.62%	4.93%	7.88%	7.27%	
	2003	10.87%	11.69%	3.22%	3.52%	1.96%	2.12%	4.97%	5.46%	7.10%	7.62%	

Table 3

Performance I	mprovement	(Worsening	g) of L	.argest	t 25 Metrop	oolitan Stati	istical	Areas	from 2	2000 to 200	3		
Metropolitan Statistical Area	Improvement Performance	A AMI Performance				CABG Performance				PCI Performance			
	Overall Rank	Improvement Rank	O/E 2000	O/E 2003	% Change	Improvement Rank	O/E 2000	O/E 2003	% Change	Improvement Rank	O/E 2000	O/E 2003	% Change
US Average	-	-	1.12	0.93	16.77	-	1.15	0.91	20.68	-	1.14	0.92	19.06
Atlanta, GA	9	14	1.01	0.84	16.52	8	1.60	1.08	32.57	7	1.10	0.82	25.45
Boston-Worcester-Lawrence-Lowell- Brockton, MA-NH	20	13	1.05	0.86	18.00	22	0.83	0.84	-1.40*	17	1.13	1.01	10.92
Chicago-Gary-Kenosha, IL-IN-WI	7	7	1.07	0.84	21.59	10	1.03	0.72	30.48	8	1.24	0.93	25.22
Cincinnati-Hamilton, OH-KY-IN	11	9	1.03	0.82	20.19	25	1.05	1.40	-33.51*	5	1.22	0.84	31.65
Cleveland-Akron, OH	3	5	0.97	0.75	23.27	20	0.80	0.78	3.31	3	0.90	0.59	33.92
Dallas-Fort Worth, TX	12	16	1.14	0.96	15.69	18	1.27	1.09	14.15	18	1.14	1.03	9.47
Denver-Boulder-Greeley, CO	16	17	0.82	0.70	14.81	17	0.95	0.80	15.83	10	1.09	0.86	20.84
Detroit-Ann Arbor-Flint, MI	2	6	1.06	0.83	21.65	7	1.01	0.67	34.08	4	1.06	0.71	32.36
Houston-Galveston-Brazoria, TX	4	3	1.19	0.90	24.63	4	1.52	0.91	39.99	19	1.10	1.01	7.88
Kansas City, MO-KS	23	21	1.00	0.86	13.38	11	1.22	0.88	27.54	25	0.95	1.06	-10.77*
Los Angeles-Riverside-Orange County, CA	14	12	1.06	0.86	18.97	3	1.23	0.74	40.00	11	1.02	0.81	20.59
Miami-Fort Lauderdale, FL CMSA	15	24	0.91	0.86	5.45	23	1.11	1.17	-6.10*	9	0.94	0.72	23.09
Minneapolis-St. Paul, MN-WI MSA	6	11	0.85	0.69	19.13	5	1.18	0.71	39.77	16	0.94	0.84	11.16
New York-Northern New Jersey-Long Island, NY-NJ-CT-PA	24	23	1.12	1.04	7.16	16	0.93	0.76	17.90	22	0.71	0.71	0.56
Philadelphia-Wilmington-Atlantic City, PA-NJ- DE-MD	22	20	1.14	0.99	13.46	9	1.14	0.77	32.24	23	1.02	1.04	-2.41
Phoenix-Mesa, AZ MSA	1	1	1.00	0.74	25.58	15	1.18	0.93	21.51	1	1.20	0.75	37.98
Pittsburgh, PA	17	15	1.14	0.96	15.84	13	0.87	0.66	23.49	13	1.27	1.05	16.77
Portland-Salem, OR-WA	18	2	1.26	0.94	25.13	14	1.11	0.85	23.23*	21	1.03	0.99	4.53*
Sacramento-Yolo, CA	25	25	1.00	0.97	3.47	24	0.63	0.73	-14.75*	24	0.82	0.86	-4.96*
San Diego, CA	10	18	1.05	0.90	14.27	1	1.57	0.65	58.29	12	1.24	1.00	19.35
San Francisco-Oakland-San Jose, CA	19	22	1.05	0.91	13.21	6	1.36	0.89	34.81	15	1.07	0.95	11.51
Seattle-Tacoma-Bremerton, WA	8	4	1.19	0.90	24.40	2	1.57	0.91	41.91	14	1.30	1.14	12.45
St. Louis, MO-IL	5	8	1.17	0.93	20.20	19	1.09	1.04	4.52	2	1.33	0.85	35.68
Tampa-St. Petersburg-Clearwater, FL	21	19	0.96	0.83	13.81	12	1.01	0.75	26.13	20	0.77	0.72	7.25
Washington-Baltimore, DC-MD-VA-WV	13	10	1.09	0.87	20.01	21	1.04	1.04	0.85	6	1.24	0.87	29.37

	СН	F Performan	се		CAP Performance				
Metropolitan Statistical Area	Improvement Rank	O/E 2000	O/E 2003	% Change	Improvement Rank	O/E 2000	O/E 2003	% Change	
US Average		1.14	0.91	20.00	-	1.08	0.93	14.07	
Atlanta, GA	13	1.07	0.84	21.52	14	1.02	0.88	14.33	
Boston-Worcester-Lawrence-Lowell-		1.12	0.88	20.88					
Brockton, MA-NH	14	1.12	0.00		23	1.03	1.00	2.61	
Chicago-Gary-Kenosha, IL-IN-WI	9	0.95	0.69	27.50	13	0.94	0.78	16.73	
Cincinnati-Hamilton, OH-KY-IN	20	0.72	0.61	15.41	1	0.85	0.55	35.94	
Cleveland-Akron, OH	3	0.84	0.57	31.94	2	0.86	0.59	31.40	
Dallas-Fort Worth, TX	1	1.13	0.72	35.78	8	1.10	0.86	22.29	
Denver-Boulder-Greeley, CO	6	0.79	0.56	29.76	21	0.79	0.73	7.61	
Detroit-Ann Arbor-Flint, MI	7	0.96	0.67	29.64	6	0.92	0.69	24.91	
Houston-Galveston-Brazoria, TX	4	1.12	0.76	31.56	5	1.07	0.80	25.16	
Kansas City, MO-KS	22	1.05	0.92	12.44	15	0.93	0.81	13.57	
Los Angeles-Riverside-Orange County, CA	19	0.96	0.81	16.10	17	0.98	0.86	12.53	
Miami-Fort Lauderdale, FL CMSA	5	0.91	0.62	31.26	9	0.81	0.63	22.08	
Minneapolis-St. Paul, MN-WI MSA	8	0.95	0.68	27.75	4	0.87	0.64	26.49	
New York-Northern New Jersey-Long Island, NY-NJ-CT-PA	21	1.26	1.07	15.29	19	1.26	1.11	11.73	
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	17	1.04	0.86	16.87	24	1.00	0.98	2.01	
Phoenix-Mesa, AZ MSA	2	0.87	0.59	32.48	7	0.76	0.58	24.00	
Pittsburgh, PA	11	1.04	0.78	24.74	20	0.99	0.89	9.56	
Portland-Salem, OR-WA	16	1.42	1.15	18.90	22	1.07	0.99	7.26	
Sacramento-Yolo, CA	23	1.02	0.92	9.92	25	1.02	1.01	1.72	
San Diego, CA	15	1.01	0.82	19.06	11	0.96	0.77	19.74	
San Francisco-Oakland-San Jose, CA	25	1.04	0.99	4.43	18	1.06	0.93	12.04	
Seattle-Tacoma-Bremerton, WA	18	1.17	0.98	16.37	10	1.02	0.81	20.71	
St. Louis, MO-IL	10	1.04	0.76	27.14	3	1.07	0.75	30.32	
Tampa-St. Petersburg-Clearwater, FL	24	0.79	0.72	7.95	16	0.83	0.72	13.30	
Washington-Baltimore, DC-MD-VA-WV	12	0.98	0.75	23.73	12	0.96	0.79	18.00	

All improvements were highly statistically significant (p< 0.01) except for those noted with *.

AMI = Acute Myocardial Infarction or Heart Attack
CABG = Coronary Artery Bypass Graft Surgery
PCI = Percutaneous Coronary Intervention or Coronary Angioplasty
CHF = Congestive Heart Failure
CAP = Community Acquired Pneumonia

16

References

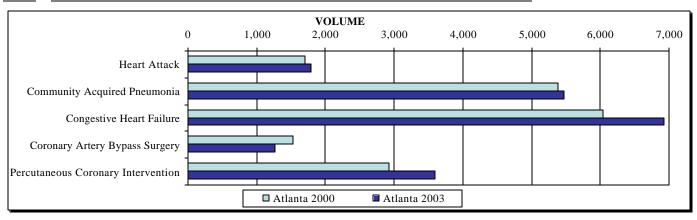
- Metropolitan and Micropolitan Statistical Area Definitions. The Office of Management and Budget (OMB) Census 2000 data. http://www.census.gov/population/cen2000/phct3/tab03.pdf
- 2. Jencks et al. Change to Quality of Care Delivered to Medicare Beneficiaries from 1998-1999 to 2000-2001. JAMA 2003;289:305-312.
- 3. U.S. Department of Health and Human Services Agency for Healthcare Research and Quality. National Healthcare Quality Report. December 2003. Rockville, MD. http://www.qualitytools.ahrq.gov/qualityreport/documents/quality_report.pdf
- 4. U.S. Department of Health and Human Services Agency for Healthcare Research and Quality. National Healthcare Disparities Report. July 2003. Rockville, MD. http://qualitytools.ahrq.gov/disparitiesreport/documents/Report%207.pdf
- 5. MedPAC. Quality of care for Medicare beneficiaries. Report to the Congress: Medicare Payment Policy. March 2004.
- 6. Understanding Heart Failure. American Heart Association. http://www.ahrq.gov/news/press/pr2004/qiguidepr.htm. October 4, 2004.
- 7. Birkmeyer JD. Should we regionalize major surgery? Potential benefits and policy considerations. *J Am Coll Surg*. 2000;190:341-349.
- 8. Birkmeyer JD, Finalyson EV, Birkmeyer CM. Volume standards for high-risk surgical procedures. *Surgery*. 2001;130:415-422.
- 9. Birkmeyer JD, Siewers AE, Finlayson EVA, et al. Hospital volume and surgical mortality in the United States. N Engl J Med. 2002;346:1128-1137.
- 10. Hannan EL. The relation between volume and outcome in health care. *N Engl J Med*. 2002;346:1161-1164.
- 11. Birkmeyer JD, Stukel TA, Siewers AE, et al. Surgeon volume and operative mortality in the United States. N Engl J Med. 2003;349:2117-2127.
- 12. The Sixth Annual HealthGrades Hospital Quality in America Study. September 2003. HealthGrades. Lakewood, CO.

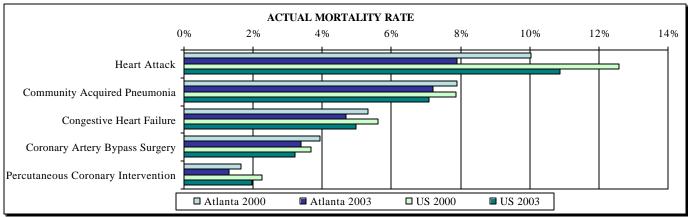
Appendix

25 Metropolitan Statistical Area (MSA) Associated Quality Indicators

These fact sheets are being supplied by HealthGrades in conjunction with our study, *The Seventh* Annual HealthGrades Hospital Quality in America Study. Is Geography Our Health Destiny? This information aims to help the media, consumers, and industry understand differences in health care quality by geographic region and improvements in quality between 2000 and 2003. These fact sheets contain data on: [1] Volume and Mortality Rates for Acute Myocardial Infarction (AMI)/Heart Attack in angioplasty-capable hospitals, Congestive Heart Failure (CHF), Community Acquired Pneumonia (CAP), Coronary Artery Bypass (CABG) Surgery, and Percutaneous Coronary Intervention (PCI) for Medicare patients; [2] Comparison of actual mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population. In other words, the lower the ratio the better. Expected mortality is based on patient mix. For more detail, see the Methods section of this study. [3] Hospital Charges and Length of Stay for the aforementioned procedures and diagnoses as compared to the national average; [4] MSA/CMSA data for The Leapfrog Group Quality Measures; [5] MSA/CMSA data for the JCAHO/CMS Process Quality Measures; [6] Top payers for health care services in the MSA/CMSA; [7] Hospitals in the MSA/CMSA.

Volume by Year and Actual Mortality Rate Comparisons

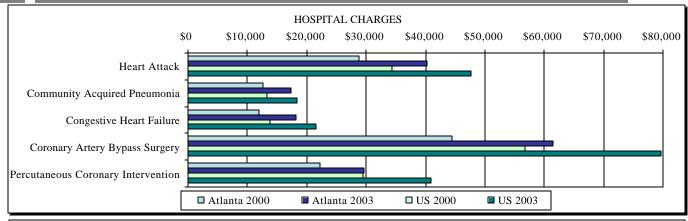


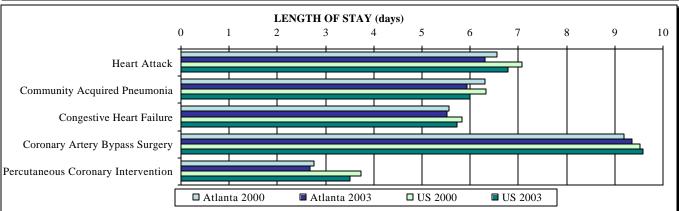


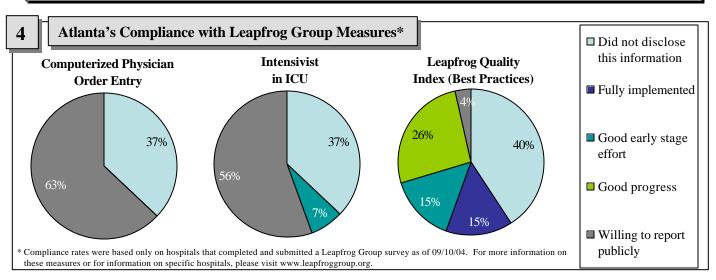
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

	OBSERVED/EXPECTED RATIO			OBSERVED/EX	OBSERVED/EXPECTED RATIO	
	Atlanta	Atlanta	PERCENT	US Average	US Average	PERCENT
	2000	2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.01	0.84	16.52%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.02	0.88	14.33%	1.08	0.93	14.07%
Congestive Heart Failure	1.07	0.84	21.52%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.60	1.08	32.57%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.10	0.82	25.45%	1.14	0.92	19.06%

Hospital Charges and Length of Stay Compared to National Averages





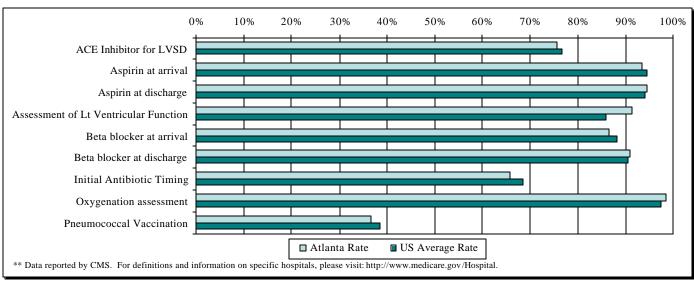


Definitions of Leapfrog Group Measures⁽¹⁾:

- 1. Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.
- 2. Intensivist in ICU: Board-certified physicians who are additionally certified in the subspecialty of critical care medicine, or physicians board-certified in emergency medicine who have completed a critical care fellowship in an ACGME-accredited program, or physicians board-certified in Medicine, Anesthesiology, Pediatrics or Surgery who completed training prior to the availability of subspecialty certification in critical care and who have provided at least six weeks of full-time ICU care annually since 1987.

 $^{^{(1)}\} http://www.leapfroggroup.org/FactSheets.htm$

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative** 5



Definitions of Performance Measures²². These are process measures of quality (are the right things being done at the right time):

- 1. ACE Inhibitor for LVSD: Acute Myocardial Infarction (AMI) and Heart Failure patients with left ventricular systolic dysfunction (LVSD) and without angiotension converting enzyme inhibitor (ACEI) contraindications who are prescribed an ACEI at hospital discharge.
- 2. Aspirin at arrival: Acute Myocardial Infarction (AMI) patients without aspirin contraindications who received aspirin within 24 hours before or after hospital arrival.
- 3. Aspirin at discharge: Acute Myocardial Infarction (AMI) patients without aspirin contraindications who are prescribed aspirin at hospital discharge.
- 4. Assessment of Left Ventricular Function: Heart Failure patients with documentation in the hospital record that left ventricular function (LVF) was assessed before arrival, during hospitalization, or is planned for after discharge.

 5. Beta blocker at arrival: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who received a beta blocker within 24 hours after hospital arrival.
- 6. Beta blocker at discharge: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who are prescribed a beta blocker at hospital discharge.
- 7. Initial Antibiotic Timing: Pneumonia patients who receive their first dose of antibiotics within 4 hours after arrival at the hospital.
- 8. Oxygenation assessment: Pneumonia patients who had an assessment of arterial oxygenation by arterial blood gas measurement or pulse oximetry within 24 hours prior to or after arrival at the hospital.
- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.



Who Pays for Health Care in Atlanta?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

United Parcel Service, Inc.

The Home Depot, Inc.

BellSouth Corporation

Delta Air Lines, Inc.

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

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Hospitals in the Atlanta MSA:

Atlanta Medical Center, Atlanta

Atlanta Veteran's Administration Medical Center, Decatur

Barrow Community Hospital, Winder

Cartersville Medical Center, Cartersville

Crawford Long Hospital, Atlanta

Dekalb Medical Center, Decatur

Emory Adventist Hospital, Smyrna

Emory Eastside Medical Center, Snellville

Emory University Hospital, Atlanta

Emory-Dunwoody Medical Center, Atlanta

Fayette Community Hospital, Fayetteville

Georgian Clinic, Atlanta

Grady Memorial Hospital, Atlanta

Gwinnett Hospital System, Lawrenceville

Henry General Hospital, Stockbridge

Jonesboro Hospital Center, Jonesboro

Mountainside Medical Center, Jasper

Newnan Hospital, Newnan

Newnan Hospital West, Newnan

Newton General Hospital, Covington

North Fulton Regional Hospital, Roswell

Northlake Regional Medicl Center, Tucker

Northside Hospital, Atlanta

Northside Hospital Cherokee, Canton

Northside Hospital Forsyth, Cumming

Piedmont Hospital, Atlanta

Regency Hospital of South Atlanta, East Point

Rockdale Hospital, Conyers

Saint Josephs Hospital of Atlanta, Atlanta

South Fulton Medical Center, East Point

Southern Regional Medical Center, Riverdale

Southwest Hospital and Medical Center, Atlanta

Spalding Regional Medical Center, Griffin

Tanner Medical Center Villa Rica, Villa Rica

Tanner Memorial Center, Carrollton

US Army Hospital, Fort Mcpherson

US Penitentiary Hospital, Atlanta

Walton Medical Center, Monroe

Wellstar Cobb Hospital, Austell

Wellstar Douglas Hospital, Douglasville

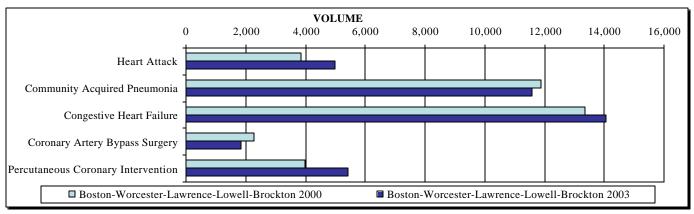
Wellstar Kennestone Hospital, Marietta

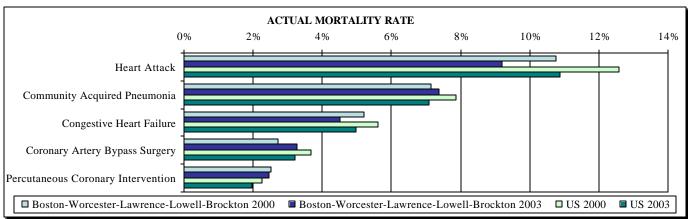
Wellstar Paulding Hospital, Dallas

Wesley Woods Geriatric Hospital, Atlanta

Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH

Volume by Year and Actual Mortality Rate Comparisons



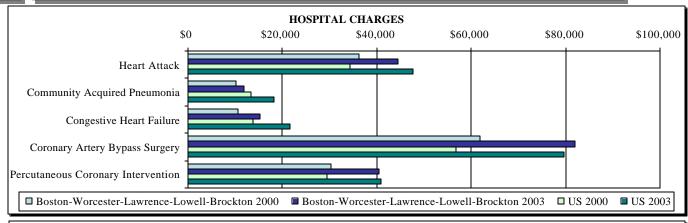


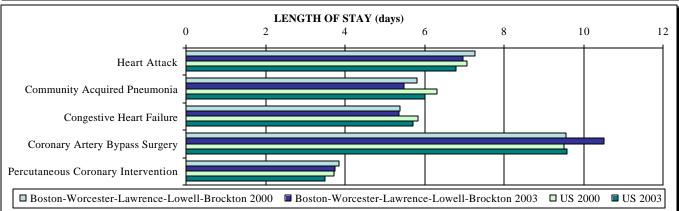
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

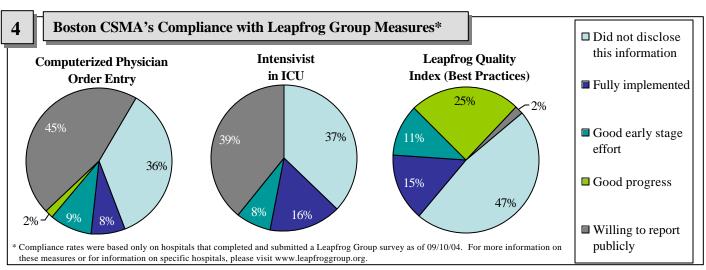
	OBSERVED/EXPECTED RATIO			OBSERVED/EX	PECTED RATIO	
	Boston CMSA	Boston CMSA	PERCENT	US Average	US Average	PERCENT
	2000	2003	IMPROVEMENT	2000	2003	IMPROVEMENT
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Community Acquired Pneumonia	1.03	1.00	2.61%	1.08	0.93	14.07%
Congestive Heart Failure	1.12	0.88	20.88%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	0.83	0.84	-1.40%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.13	1.01	10.92%	1.14	0.92	19.06%

Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures(1):

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 $^{^{(1)}\} http://www.leapfroggroup.org/FactSheets.htm$

Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH

5 Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



Definitions of Performance Measures²⁾. These are process measures of quality (are the right things being done at the right time):

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- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.



Who Pays for Health Care in Boston?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

The TJX Companies, Inc.

Raytheon Company

FleetBoston Financial Corporation

Staples, Inc.

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH



Hospitals in the Boston CMSA:

Adcare Hospital Of Worcester Inc, Worcester, MA

Anna Jaques Hospital, Newburyport, MA Athol Memorial Hospital, Athol, MA Audubon Hospital, Boston, MA Baldpate Hospital, Georgetown, MA Bessie Burke Hospital, Lawrence, MA

Beth Israel Deaconess Medical Center, Boston, MA

Beverly Hospital, Beverly, MA Boston Medical Center, Boston, MA

Boston Medical Center Corporation Boston City Campus, Boston, MA

Boston Regional Medical Center Inc, Stoneham, MA Brigham And Womens Hospital, Boston, MA

Brockton Hospital, Brockton, MA Cambridge Hospital, Cambridge, MA Caritas Carney Hospital, Boston, MA

Caritas Good Samaritan Medical Center, Brockton, MA

Caritas Holy Family Hospital And Medical Center, Methuen, MA

Caritas Norwood Hospital Inc, Norwood, MA Caritas St Elizabeths Medical Center, Brighton, MA Catholic Medical Center, Manchester, NH

Catholic Medical Center, Manchester, NH Clinton Hospital Association, Clinton, MA Dana Farber Cancer Institute, Boston, MA

Deaconess Glover Hospital Corporation, Needham, MA

Elliot Hospital, Manchester, NH Emerson Hospital, W Concord, MA Exeter Hospital Inc, Exeter, NH Faulkner Hospital, Boston, MA

Frisbie Memorial Hospital, Rochester, NH Fuller Memorial Sanatorium, South Attleboro, MA

Hanover House, Hanover, MA

Harrington Memorial Hospital, Southbridge, MA Haverhill Municipal Hospital, Haverhill, MA Health Alliance Hospitals Inc, Leominster, MA Health Department Hospital, Salem, MA Heywood Hospital, Gardner, MA

Hubbard Regional Hospital, Webster, MA Jordan Hospital Inc, Plymouth, MA

Lahey Clinic Medical Center, Burlington, MA Lawrence General Hospital, Lawrence, MA Lawrence Memorial Hospital, Medford, MA Lowell General Hospital, Lowell, MA

Malden Hospital, Malden, MA

Marlborough Hospital, Marlborough, MA

Massachusetts Eye And Ear Infirmary, Boston, MA

Massachusetts General Hospital, Boston, MA

Melrose Wakefield Hospital, Melrose, MA Merrimack Valley Hospital, Haverhill, MA Metrowest Medical Center, Framingham, MA Milford Whitinsville Regional Hospital, Milford, MA

Milton Medical Center, Milton, MA

Monadnock Community Hospital, Peterborough, NH

Moore General Hospital, Goffstown, NH

Morton Hospital And Medical Center, Taunton, MA

Mt Auburn Hospital, Cambridge, MA Mt Pleasant Hospital, Lynn, MA

Nashoba Valley Medical Center Hospital, Ayer, MA

Naukeag Hospital, Ashburnham, MA New England Baptist Hospital, Boston, MA Newton Wellesley Hospital, Newton, MA Parkland Medical Center, Derry, NH

Portsmouth Regional Hospital, Portsmouth, NH Quigley Memorial Hospital, Chelsea, MA Quincy Medical Center, Quincy, MA

Saints Memorial Medical Center Inc, Lowell, MA

Salem Hospital Corporation, Salem, MA South Shore Hospital, South Weymouth, MA Southcoast Hospital Group Inc, Fall River, MA Southern New Hampshire Medical Center, Nashua, NH St Annes Hospital Corporation, Fall River, MA

St Camillus Chronic Disease Hospital, Whitinsville, MA

St Joseph Hospital, Nashua, NH

St Luke's Hospital Of New Bedford Inc, New Bedford, MA

St Vincent Hospital, Worcester, MA

Stillman Infirmary Harvard University, Cambridge, MA

Sturdy Memorial Hospital, Attleboro, MA Tufts New England Medical Center, Boston, MA

Umass Memorial Medical Center Memorial Campus, Worcester, MA

Union Hospital, Lynn, MA US Naval Hospital, Chelsea, MA US Naval Hospital, Portsmouth, NH

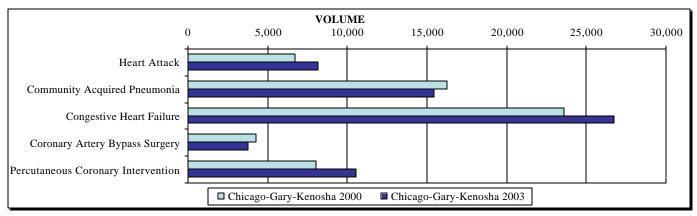
US Pub Health Services Hospital, Boston, MA Veteran's Administration Hospital, Bedford, MA Veteran's Administration Hospital, Boston, MA Veteran's Administration Hospital, Manchester, NH

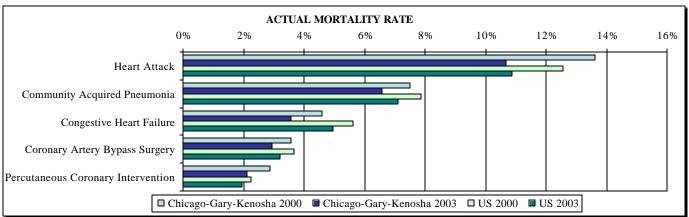
Villa Atlanta Hospital, Magnolia, MA Washingtonian Hospital, Jamaica Plain, MA Wentworth Douglass Hospital, Dover, NH Westwood Lodge Hospital, Westwood, MA Winchester Hospital, Winchester, MA

Woodside Cottages Hospital, Framingham, MA

Chicago-Gary-Kenosha, IL-IN-WI

Volume by Year and Actual Mortality Rate Comparisons



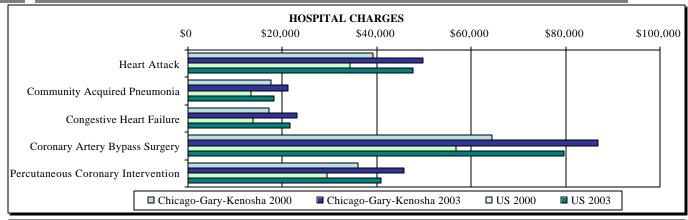


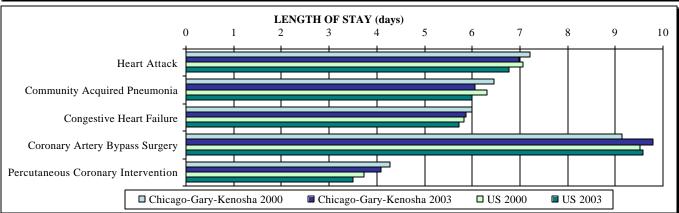
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

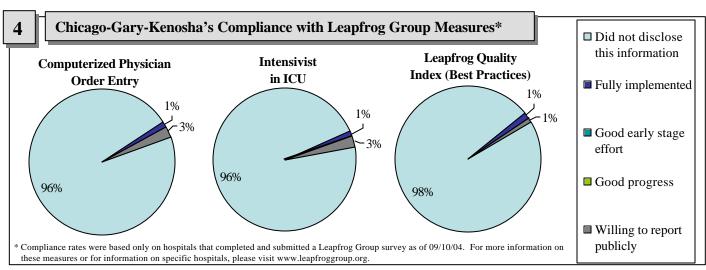
	OBSERVED/EXPECTED RATIO			OBSERVED/EX	PECTED RATIO	
	Chicago-Gary-	Chicago-Gary-	PERCENT	US Average	US Average	PERCENT
	Kenosha 2000	Kenosha 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.07	0.84	21.59%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.94	0.78	16.73%	1.08	0.93	14.07%
Congestive Heart Failure	0.95	0.69	27.50%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.03	0.72	30.48%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.24	0.93	25.22%	1.14	0.92	19.06%

Chicago-Gary-Kenosha, IL-IN-WI

Hospital Charges and Length of Stay Compared to National Averages







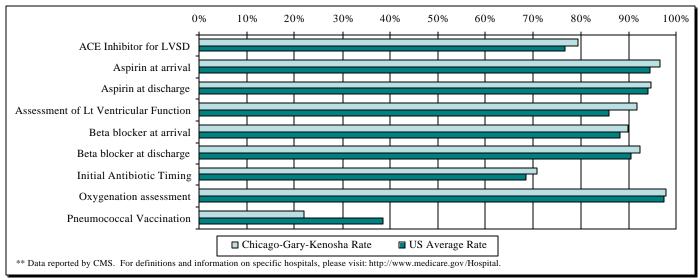
Definitions of Leapfrog Group Measures⁽¹⁾:

- 1. Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Chicago-Gary-Kenosha, IL-IN-WI

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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- 7. Initial Antibiotic Timing: Pneumonia patients who receive their first dose of antibiotics within 4 hours after arrival at the hospital.
- 8. Oxygenation assessment: Pneumonia patients who had an assessment of arterial oxygenation by arterial blood gas measurement or pulse oximetry within 24 hours prior to or after arrival at the hospital.
- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.
- (2) http://www.cms.hhs.gov/quality/hospital/

Who Pays for Health Care in Chicago-Gary-Kenosha?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

McDonald's Corporation

Sears Roebuck and Company

The Boeing Company

Sara Lee Corporation

⁺ Includes four largest employers

Chicago-Gary-Kenosha, IL-IN-WI



Hospitals in the Chicago-Gary-Kenosha CMSA:

Advocate Bethany Hospital, Chicago, IL
Advocate Christ Medical Center, Oak Lawn, IL
Advocate Good Samaritan Hospital, Downers Grove, IL
Advocate Good Shepherd Hospital, Barrington, IL
Advocate Lutheran General Hospital, Park Ridge, IL
Advocate Ravenswood Medical Center, Chicago, IL
Advocate South Suburban Hospital, Hazel Crest, IL

Alexian Brothers Medical Center, Elk Grove Village, IL

Aurora Medical Center Kenosha, Kenosha, WI Central Dupage Hospital, Winfield, IL Community Hospital, Munster, IN Condell Medical Center, Libertyville, IL Cook County Hospital, Chicago, IL Delnor Community Hospital, Geneva, IL Edward Hines Jr Va Hospital, Hines, IL Edward Hospital, Naperville, IL

Advocate Trinity Hospital, Chicago, IL

Elmhurst Memorial Hospital, Elmhurst, IL Evanston Northwestern Healthcare, Evanston, IL Glenoaks Medical Center Inc, Glendale Heights, IL Gottlieb Memorial Hospital, Melrose Park, IL

Halco Sanatorium, Chicago, IL

Harvard Community Memorial Hospital, Harvard, IL

Hinsdale Hospital, Hinsdale, IL Holy Cross Hospital, Chicago, IL

Holy Family Medical Center, Des Plaines, IL Illiana Surgery And Medical Center Llc, Munster, IN

Illinois Childrens Hospital, Chicago, IL
Illinois State Pediatric Institute, Chicago, IL
Ingalls Memorial Hospital, Harvey, IL
Jackson Park Hospital Foundation, Chicago, IL
Kane County Springbrook Sanatorium, Aurora, IL
Kishwaukee Community Hospital, Dekalb, IL

La Grange Hospital, La Grange, IL Lake Forest Hospital, Lake Forest, IL

Little Company Of Mary Hospital, Evergreen Park, IL

Loretto Hospital, Chicago, IL

Louis A Weiss Memorial Hospital, Chicago, IL Loyola University Medical Center, Maywood, IL Mac Neal Memorial Hospital, Berwyn, IL Memorial Medical Center, Woodstock, IL Mercy Hospital And Medical Center, Chicago, IL

Merit Lincoln Park Llc Dba Lincoln Park Hospital, Chicago, IL

Methodist Hospital Of Chicago, Chicago, IL Methodist Hospitals Inc Southlake, Merrillville, IN

Methodist Hospitals Northlake, Gary, IN

Michael Reese Hospital & Medical Center, Chicago, IL

Midwestern Region Medical Center, Zion, IL Mooseheart Hospital, Mooseheart, IL

Morris Hospital, Morris, IL

Mt Sinai Hospital Medical Center, Chicago, IL

Municipal Contagious Disease Hospital, Chicago, IL Northern Illinois Medical Center, Mchenry, IL Northwest Community Hospital, Arlington Heights, IL Northwestern Memorial Hospital, Chicago, IL Norwegian American Hospital, Chicago, IL Oak Forest Hospital, Oak Forest, IL

Oak Park Hospital, Oak Park, IL

Our Lady Of The Resurrection Medical Center, Chicago, IL

Porter Memorial Hospital, Valparaiso, IN Provena Mercy Center, Aurora, IL Provena St Joseph Medical Center, Joliet, IL Provena St Marys Hospital, Kankakee, IL

Provident Hospital Of Chicago, Chicago, IL

Palos Community Hospital, Palos Heights, IL

Regency Hospital Of Northwest Indiana Llc, East Chicago, IN

Resurrection Medical Center, Chicago, IL Riverside Medical Center, Kankakee, IL Roseland Community Hospital, Chicago, IL Rush Copley Memorial Hospital, Aurora, IL Rush North Shore Medical Center, Skokie, IL

Rush Presbyterian St Lukes Medical Center, Chicago, IL

Sacred Heart Hospital, Chicago, IL

Saint Joseph Hospital And Health Cr Center, Chicago, IL

Sherman Hospital, Elgin, IL Silver Cross Hospital, Joliet, IL South Shore Hospital, Chicago, IL

St Alexius Medical Center, Hoffman Estates, IL St Anthony Medical Center, Crown Point, IN

St Anthonys Hospital, Chicago, IL St Bernard Hospital, Chicago, IL

St Catherine Hospital Inc, East Chicago, IN St Catherines Hospital Inc, Kenosha, WI

St Elizabeth Hospital Of Chicago Inc, Chicago, IL St Francis Hospital And Health Center, Blue Island, IL St Francis Hospital Of Evanston, Evanston, IL

St James Hospital & Health Centers Olympia Fields Campus, Olympia Fields, IL

St Joseph Hospital, Elgin, IL

St Margaret Mercy Hlthcare Centers Inc Sc, Dyer, IN

St Margaret Mercy Hlthcare Centers No Campus, Hammond, IN

St Mary Medical Center Inc, Hobart, IN

St Mary Of Nazareth Hospital Center, Chicago, IL St Therese Medical Center, Waukegan, IL

Sunny Hill Sanatorium, Joliet, IL Swedish Covenant Hospital, Chicago, IL Thorek Hospital And Medical Center, Chicago, IL

United Hsptl System Inc, Kenosha, WI University Of Chicago Hospitals, Chicago, IL University Of Illinois Hospital, Chicago, IL

US Naval Hospital, Great Lakes, IL

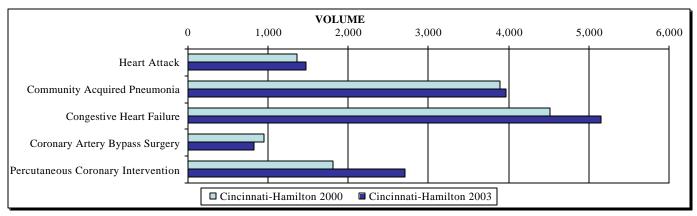
Veteran's Administration Chicago Health Care System Lakeside Division, Chicago, IL Veteran's Administration Chicago Health Care System West Side Division, Chicago, IL

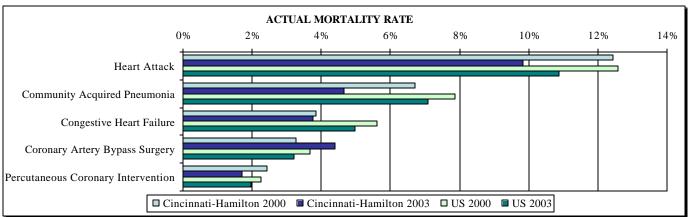
Veteran's Administration Hospital, Downey, IL Valley West Community Hospital, Sandwich, IL Victory Memorial Hospital, Waukegan, IL

West Suburban Hospital Medical Center, Oak Park, IL Westlake Community Hospital, Melrose Park, IL

Cincinnati-Hamilton, OH-KY-IN

Volume by Year and Actual Mortality Rate Comparisons



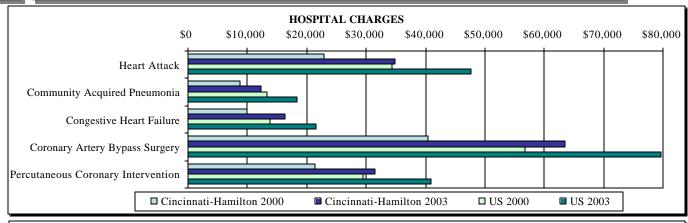


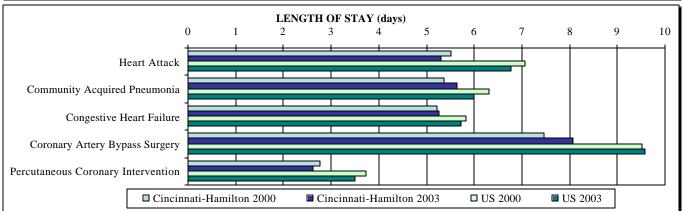
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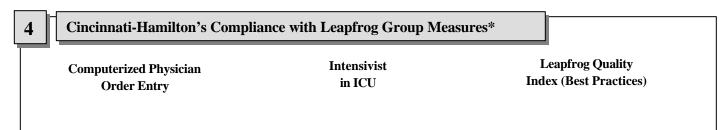
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Cincinnati-	Cincinnati-	PERCENT	US Average	US Average	PERCENT
	Hamilton 2000	Hamilton 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.03	0.82	20.19%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.85	0.55	35.94%	1.08	0.93	14.07%
Congestive Heart Failure	0.72	0.61	15.41%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.05	1.40	-33.51%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.22	0.84	31.65%	1.14	0.92	19.06%

Cincinnati-Hamilton, OH-KY-IN

Hospital Charges and Length of Stay Compared to National Averages







Data unavailable in this CMSA as no hospitals submitted data to The Leapfrog Group.

* Compliance rates were based only on hospitals that completed and submitted a Leapfrog Group survey as of 09/10/04. For more information on these measures or for information on specific hospitals, please visit www.leapfroggroup.org.

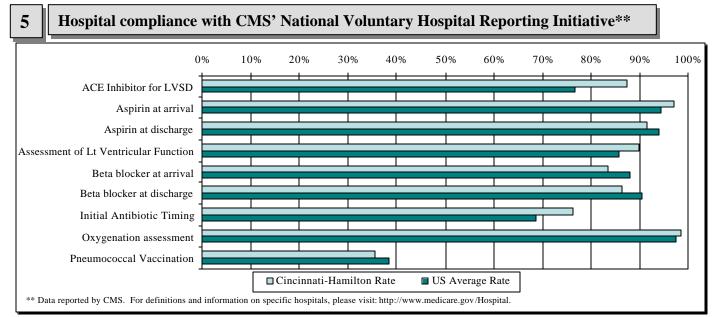
Definitions of Leapfrog Group Measures(1):

3

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Cincinnati-Hamilton, OH-KY-IN



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 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in Cincinnati-Hamilton?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

The Kroger Company

Federated Department Stores, Inc.

The Procter & Gamble Company

Convergys Corporation

⁺ Includes four largest employers



Hospitals in the Cincinnati-Hamilton CMSA:

Bethesda North Hospital, Cincinnati, OH

Brown County General Hospital, Georgetown, OH

Christ Hospital, Cincinnati, OH

Deaconess Hospital, Cincinnati, OH

Dearborn County Hospital, Lawrenceburg, IN

Drake Pavilion Llc, Cincinnati, OH

Fort Hamilton Hughes Memorial Hospital, Hamilton, OH

Good Samaritan Hospital, Cincinnati, OH

Jewish Hospital The, Cincinnati, OH

Mccullough Hyde Memorial Hospital, Oxford, OH

Mercy Franciscan Hospital Mt Airy, Cincinnati, OH Mercy Franciscan Hospital Western Hills, Cincinnati, OH University Hospital Inc, Cincinnati, OH Veteran's Administration Hospital, Cincinnati, OH

St Luke Hospital East, Fort Thomas, KY

St Luke Hospital West, Florence, KY

Mercy Hospital Anderson, Cincinnati, OH

Mercy Hospital Clermont, Batavia, OH

Mercy Hospital Fairfield, Fairfield, OH

Miami University Infirmary, Oxford, OH

St Elizabeth Medical Center, Covington, KY

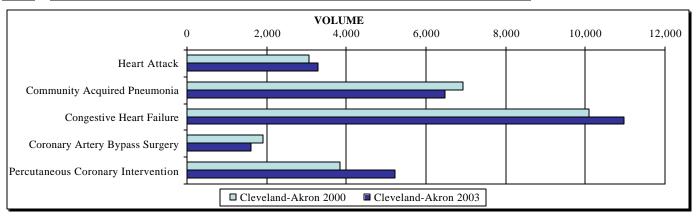
Western College Infirmary Hospital, Oxford, OH

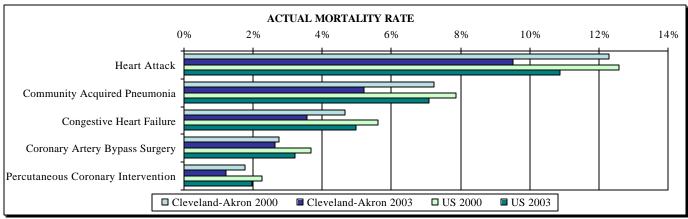
Middletown Regional Hospital, Middletown, OH

St Elizabeth Medical Center Grant Cty, Williamstown, KY

Cleveland-Akron, OH

Volume by Year and Actual Mortality Rate Comparisons



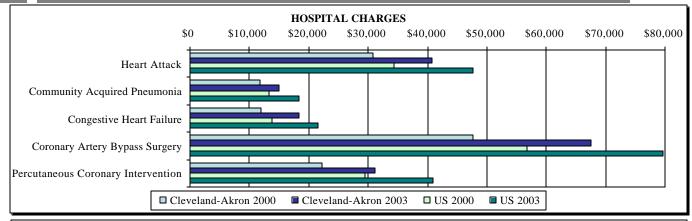


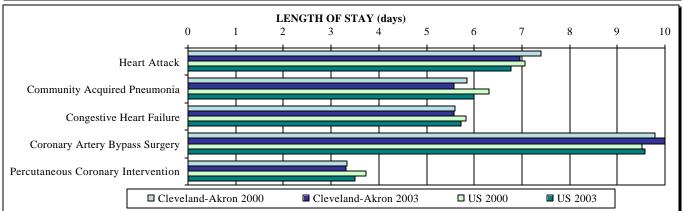
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

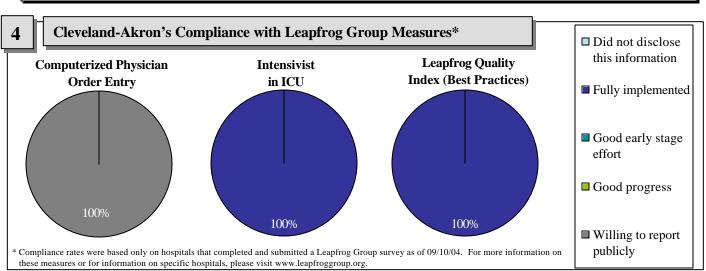
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Cleveland-	Cleveland-	PERCENT	US Average	US Average	PERCENT
	Akron 2000	Akron 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	0.97	0.75	23.27%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.86	0.59	31.40%	1.08	0.93	14.07%
Congestive Heart Failure	0.84	0.57	31.94%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	0.80	0.78	3.31%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	0.90	0.59	33.92%	1.14	0.92	19.06%

Cleveland-Akron, OH

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures(1):

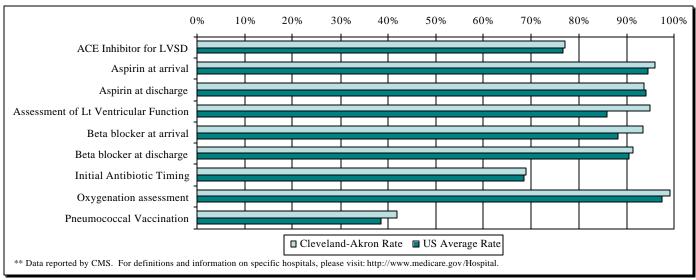
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Cleveland-Akron, OH

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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Who Pays for Health Care in Cleveland-Akron?⁺

Government (Medicare, Medicaid, State, Local, School Districts) Goodyear Tire & Rubber Parker-Hannifin Corporation **Eaton Corporation National City Corporation**

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Cleveland-Akron, OH



Hospitals in the Cleveland-Akron CMSA:

Akron General Medical Center, Akron

Allen Medical Center, Oberlin

Amherst Hospital, Amherst

Ashtabula County Medical Center, Ashtabula

Barberton Citizens Hospital, Barberton

Cleveland Clinic Foundation, Cleveland

Community Health Partners Of Oh West, Lorain

Cuyahoga Falls General Hospital, Cuyahoga Falls

Deaconess Hospital, Cleveland

E M H Regional Medical Center, Elyria

Edwin Shaw Hospital, Akron

Fairview Hospital, Cleveland

Glenbeigh Health Sources, Rock Creek

Goodyear Tire Hospital, Akron

Hillcrest Hospital, Mayfield Heights

Huron Hospital, Cleveland

Lake Hospital System Inc, Painesville

Lakewood Hospital, Lakewood

Lodi Community Hospital, Lodi

Louis Stokes VA Medical Center Wade Park Division, Cleveland

Lutheran Hospital, Cleveland

Marymount Hospital, Garfield Heights

Medina General Hospital, Medina

Meridia Euclid Hospital, Euclid

Metro Health Medical Center, Cleveland

Parma Community General Hospit, Parma

Ridgecliff Hospital, Wickliffe

Robinson Memorial Hospital, Ravenna

Sagamore Hills Hospital, Northfield

South Pointe Hospital, Warrensville Heights

Southwest General Health Center, Middleburg Heights

St John West Shore Hospital, Westlake

St Vincent Charity Hospital, Cleveland

Summa Health System, Akron

Uhhs Bedford Medical Center, Bedford

Uhhs Brown Memorial Hospital, Conneaut

Uhhs Memorial Hospital Of Geneva, Geneva

Uhhs Richmond Heights Hospital, Richmond Heights

University Hospital Health System Geauga Regional Hospital, Chardon

University Hospital Health System St Michael Hospital, Cleveland

University Hospitals Of Clevel, Cleveland

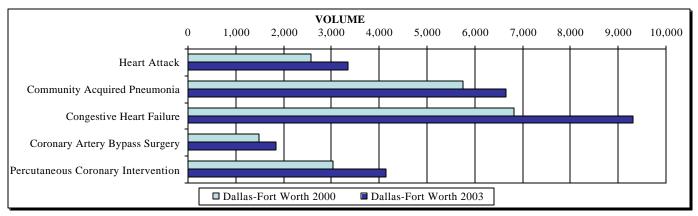
Veteran's Administration Hospital, Cleveland

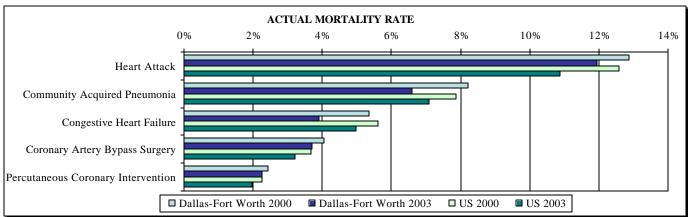
Wadsworth Rittman Hospital, Wadsworth

Woodruff Hospital, Cleveland

Dallas-Fort Worth, TX

Volume by Year and Actual Mortality Rate Comparisons



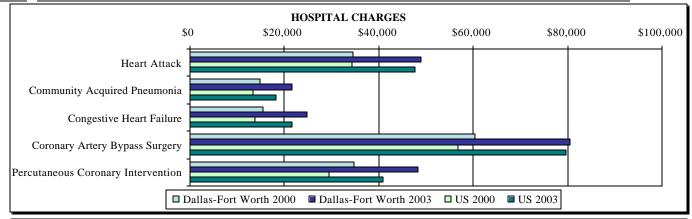


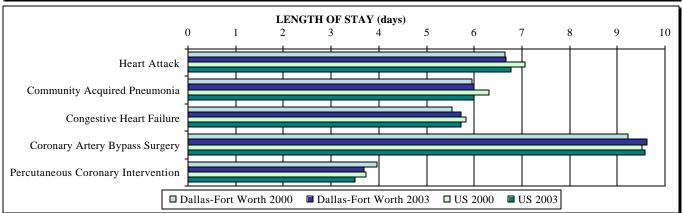
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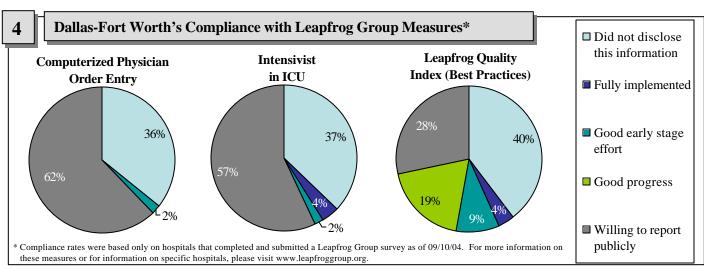
	ODGEDIJED ÆM	DECEED DATE		ODGEDIJED EIZ	OBSERVED/EXPECTED RATIO			
	OBSERVED/EX	PECTED RATIO		OBSERVED/EX	PECTED RATIO			
	Dallas-	Dallas-	PERCENT	US Average	US Average	PERCENT		
	Fort Worth 2000	Fort Worth 2003	IMPROVEMENT	2000	2003	IMPROVEMENT		
Heart Attack	1.14	0.96	15.69%	1.12	0.93	16.77%		
Community Acquired Pneumonia	1.10	0.86	22.29%	1.08	0.93	14.07%		
Congestive Heart Failure	1.13	0.72	35.78%	1.14	0.91	20.21%		
Coronary Artery Bypass Surgery	1.27	1.09	14.15%	1.15	0.91	20.68%		
Percutaneous Coronary Intervention	1.14	1.03	9.47%	1.14	0.92	19.06%		

Dallas-Fort Worth, TX

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures(1):

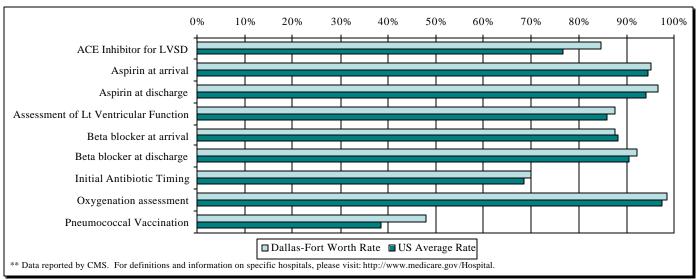
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Dallas-Fort Worth, TX

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.



Who Pays for Health Care in Dallas-Fort Worth?⁺

Government (Medicare, Medicaid, State, Local, School Districts) J.C. Penney Company, Inc.

Electronic Data Systems Corporation

AMR Corporation

Exxon Mobil Corporation

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Dallas-Fort Worth, TX



Hospitals in the Dallas-Fort Worth CMSA:

Arlington Memorial Hospital, Arlington Bariatric Care Center of Texas, Wylie

Baylor All Saints Medical Center, Fort Worth Baylor Heart And Vascular Center, Dallas Baylor Medical Center at Garland, Garland Baylor Medical Center at Grapevine, Grapevine

Baylor Medical Center at Irving, Irving

Baylor Medical Center at Waxahachie, Waxahachie

Baylor University Medical Center, Dallas Campbell Health System, Weatherford

Casa Blanca Hospital, Dallas Denton Hospital, Denton

Denton Regional Medical Center, Denton

Doctors Hospital of Dallas, Dallas

East Texas Medical Center Athens, Athens

Elmwood Sanatorium, Fort Worth Ennis Regional Medical Center, Ennis Ennis Regional Medical Center, Ennis

Federal Correctional Institute Hospital, Seagoville

Frisco Medical Center, Frisco

Ft Worth Neuropsychiatric Hospital, Fort Worth

Harris Methodist Fort Worth, Fort Worth

Harris Methodist H E B, Bedford Harris Methodist Northwest, Azle Harris Methodist Southwest, Fort Worth Healthsouth Medical Center, Dallas Huguley Health System, Fort Worth Hurst Euless Bedford Hospital, Bedford J P S Health Network, Fort Worth Jackson Clinic Hospital, Terrell

Jones Childrens Haven Hospital, Dallas Lake Granbury Medical Center, Granbury Lake Pointe Medical Center, Rowlett Las Colinas Medical Center, Irving Leland Medical Plaza, Garland

Margaret Jonsson Charlton Meth Hospital, Dallas

Mary Shiels Hospital, Dallas

Medical Center at Lancaster, Lancaster

Medical Center at Terrell, Terrell

Medical Center of Arlington, Arlington Medical Center of Lewisville, Lewisville

Medical Center of Mesquite , Mesquite

Medical Center of Plano, Plano Medical City Dallas Hospital, Dallas

Mesquite Community Hospital, Mesquite Methodist Medical Center, Dallas

North Central Medical Center, Mckinney North Hills Hospital, North Richland Hills

Osteopathic Medical Center of Texas, Fort Worth Parkland Health And Hospital System, Dallas

Physicians Metroplex Hospital, Plano Plaza Medical Center, Fort Worth Presbyterian Hospital of Allen, Allen

Presbyterian Hospital of Commerce, Commerce

Presbyterian Hospital of Dallas, Dallas

Presbyterian Hospital of Greenville, Greenville Presbyterian Hospital of Kaufman, Kaufman

Presbyterian Hospital of Plano, Plano Rhd Memorial Medical Center, Dallas

Richardson Regional Medical Center, Richardson

Schick Hospital, Fort Worth

Scottish Rite Crippled Children Hospital, Dallas

Seyler Clinic And Hospital, Commerce St Paul University Hospital, Dallas Texas Clinic Hospital, Dallas Timberlawn Sanitarium, Dallas Tri City Health Centre Inc, Dallas Trinity Medical Center, Carrollton US Air Force Hospital, Fort Worth

US Public Health Service Hospital, Fort Worth Veteran's Administration Hospital, Dallas W I Cook Childrens Hospital, Fort Worth

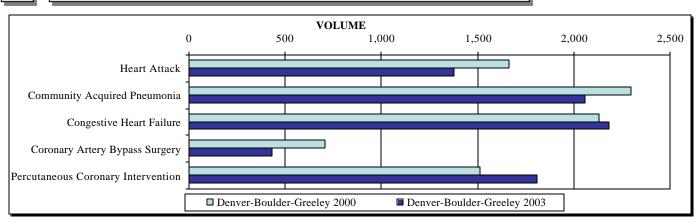
Walls Regional Hospital, Cleburne

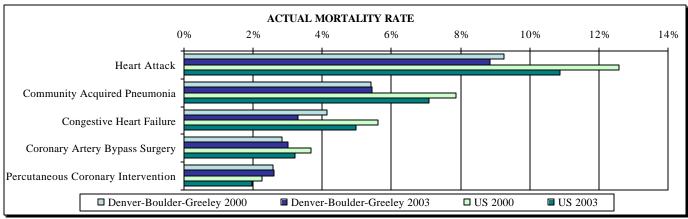
Wylie Hospital, Wylie

Zale Lipshy University Hospital, Dallas

Denver-Boulder-Greeley, CO

Volume by Year and Actual Mortality Rate Comparisons



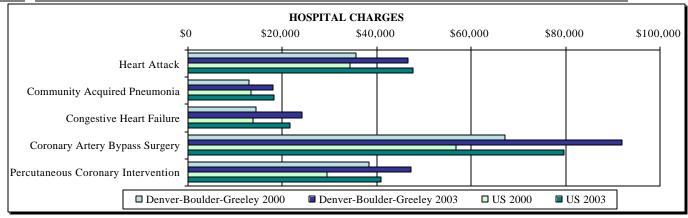


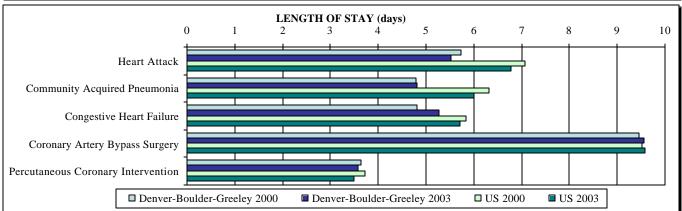
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

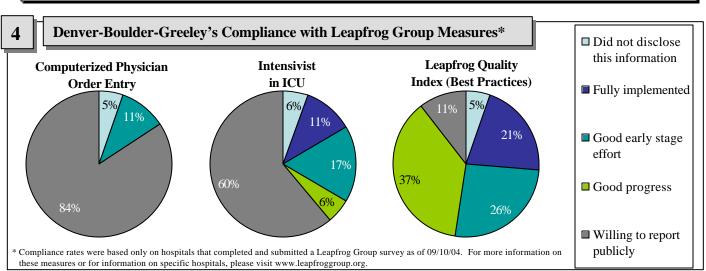
	OBSERVED/EXPECTED RATIO			OBSERVED/EXPECTED RATIO		
	Denver-Boulder-	Denver-Boulder-	PERCENT	US Average	US Average	PERCENT
	Greeley 2000	Greeley 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	0.82	0.70	14.81%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.79	0.73	7.61%	1.08	0.93	14.07%
Congestive Heart Failure	0.79	0.56	29.76%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	0.95	0.80	15.83%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.09	0.86	20.84%	1.14	0.92	19.06%

Denver-Boulder-Greeley, CO

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures(1):

^{1.} Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur – at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.

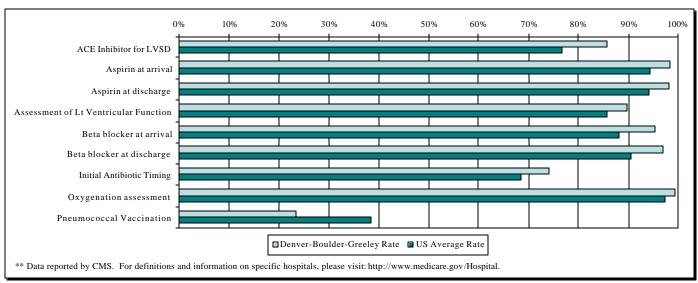
^{2.} Intensivist in ICU: Board-certified physicians who are additionally certified in the subspecialty of critical care medicine, or physicians board-certified in emergency medicine who have completed a critical care fellowship in an ACGME-accredited program, or physicians board-certified in Medicine, Anesthesiology, Pediatrics or Surgery who completed training prior to the availability of subspecialty certification in critical care and who have provided at least six weeks of full-time ICU care annually since 1987.

⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Denver-Boulder-Greeley, CO

5

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



Definitions of Performance Measures²². These are process measures of quality (are the right things being done at the right time):

- 1. ACE Inhibitor for LVSD: Acute Myocardial Infarction (AMI) and Heart Failure patients with left ventricular systolic dysfunction (LVSD) and without angiotension converting enzyme inhibitor (ACEI) contraindications who are prescribed an ACEI at hospital discharge.
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⁽²⁾ http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in Denver-Boulder-Greeley? +

Government (Medicare, Medicaid, State, Local, School Districts)

Owest Communications International Inc.

First Data Corporation

Regal Entertainment Group

Echostar Communications Corporation

⁺ Includes four largest employers



Hospitals in the Denver-Boulder-Greeley CMSA:

Boulder Community Hospital, Boulder

Centura Health Avista Adventist Hospital, Louisville

Centura Health Porter Adventist Hospital, Denver

Centura Health St Anthony Central Hospital, Denver

Centura Health St Anthony North Hospital, Westminster

Childrens Hospital, Denver

Denver Health Medical Center, Denver

Exempla Inc Saint Joseph Hospital, Denver

Exempla Lutheran Medical Center, Wheat Ridge

Longmont United Hospital, Longmont Medical Center Of Aurora, Aurora

North Colorado Medical Center, Greeley North Suburban Medical Center, Thornton

Platte Valley Medical Center, Brighton

Presbyterian St Luke's Medical Center, Denver

Natl Jewish Medical And Research Center, Denver

Rose Medical Center, Denver

Sky Ridge Medical Center, Lone Tree

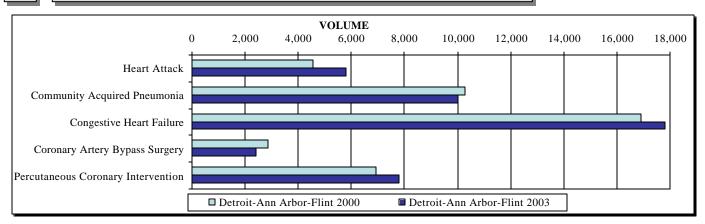
Swedish Medical Center, Englewood

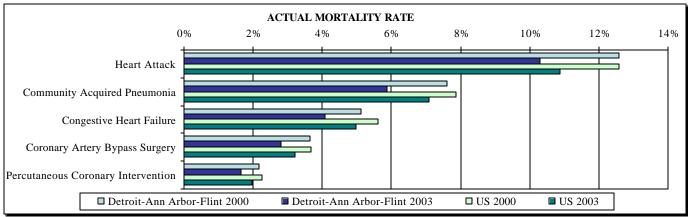
University Of Colorado Hospital, Denver

Veteran's Administration Hospital, Denver

Detroit-Ann Arbor-Flint, MI

Volume by Year and Actual Mortality Rate Comparisons



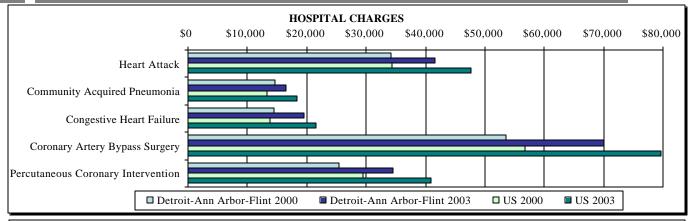


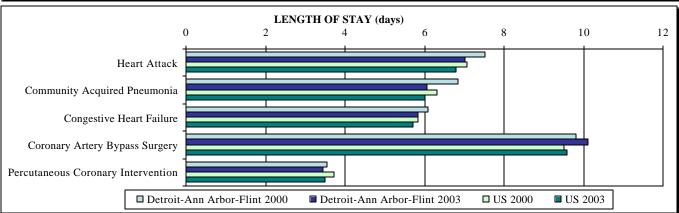
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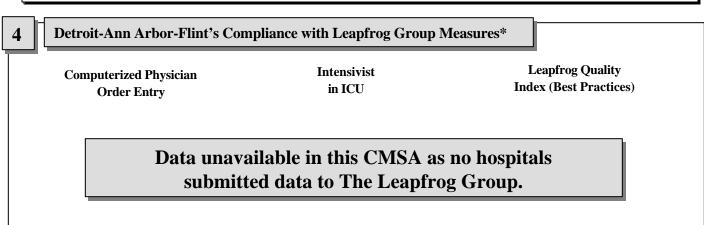
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Detroit-	Detroit-		ODSER VED/EX	LECTED KATTIO	
	Ann Arbor-	Ann Arbor-	PERCENT	US Average	US Average	PERCENT
	Flint 2000	Flint 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.06	0.83	21.65%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.92	0.69	24.91%	1.08	0.93	14.07%
Congestive Heart Failure	0.96	0.67	29.64%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.01	0.67	34.08%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.06	0.71	32.36%	1.14	0.92	19.06%

Detroit-Ann Arbor-Flint, MI

Hospital Charges and Length of Stay Compared to National Averages







* Compliance rates were based only on hospitals that completed and submitted a Leapfrog Group survey as of 09/10/04. For more information on these measures or for information on specific hospitals, please visit www.leapfroggroup.org.

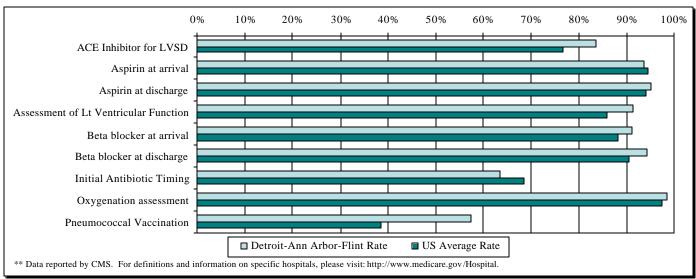
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Detroit-Ann Arbor-Flint, MI





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Who Pays for Health Care in Detroit-Ann Arbor-Flint?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Ford Motor Company

General Motors Corporation

Kmart Corporation

Delphi Corporation

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Detroit-Ann Arbor-Flint, MI



Hospitals in the Detroit-Ann Arbor-Flint CMSA:

Bi County Community Hospital, Warren Bon Secours Hospital, Grosse Pointe Botsford General Hospital, Farmington

Brighton Hospital, Brighton Brighton Hospital, Brighton

Chelsea Community Hospital, Chelsea Cottage Hospital, Grosse Pointe Farms Crittenton Hospital, Rochester Hills

Detroit Rec Hospital And University Health Center, Detroit

Emma L Bixby Medical Center, Adrian Federal Correctional Institute Hospital, Milan Garden City Osteopathic Hospital, Garden City General Motors Technical Center Infirmary, Warren Genesys Regional Medical Center, Grand Blanc

Harper University Hospital, Detroit Henry Ford Hospital, Detroit

Henry Ford Wyandotte Hospital, Wyandotte Herrick Memorial Hospital, Tecumseh

Hurley Medical Center, Flint

Huron Valley Sinai Hospital, Commerce Kern Hospital & Medical Center, Warren Kindred Hospital Metro Detroit, Detroit

Lapeer Regional Hospital, Lapeer Mclaren Regional Medical Center, Flint

Mercy Hospital, Port Huron Mercy Memorial Hospital, Monroe

Mt Clemens General Hospital, Mount Clemens

North Oakland Medical Centers, Pontiac

Oakwood Annapolis Hospital, Wayne Oakwood Heritage Hospital, Taylor

Oakwood Hospital And Medical Center, Dearborn Oakwood Hospital Beyer Center, Ypsilanti Oakwood Southshore Medical Center, Trenton Pontiac Osteopathic Hospital, Pontiac Port Huron Hospital, Port Huron Providence Hospital, Southfield

Renaissance Hospital And Medical Centers, Detroit Saint Joseph Mercy Livingston Hospital, Howell Saint Joseph Mercy Saline Hospital, Saline

Scci Hospital Detroit, Detroit

Select Specialty Hospital Pontiac, Pontiac

Sinai Grace Hospital, Detroit

St John Detroit Riverview Hospital, Detroit St John Hospital And Medical Center, Detroit

St John Macomb Hospital, Warren

St John North Shores Hospital, Harrison Township St John Northeast Community Hospital, Detroit St John Oakland Hospital, Madison Heights St John River District Hospital, East China St Joseph Mercy Hospital, Ann Arbor

St Joseph Mercy Oakland, Pontiac

St Josephs Mercy Hospital And Health Services, Clinton Township

St Mary Mercy Hospital, Livonia

Straith Hospital For Special Surgery, Southfield

Towne Hospital, Detroit

United Community Hospital, Detroit

University of Michigan Health System, Ann Arbor University of Michigan Infirmary, Ann Arbor US Air Force Hospital, Mount Clemens US Public Health Service Hospital, Detroit

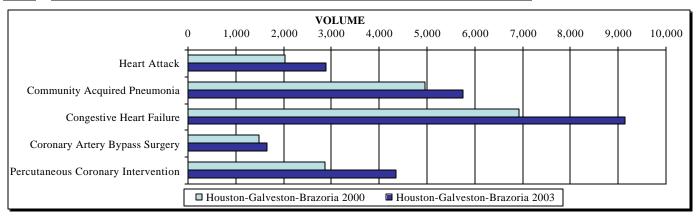
Veteran's Administration Ann Arbor Healthcare System, Ann Arbor

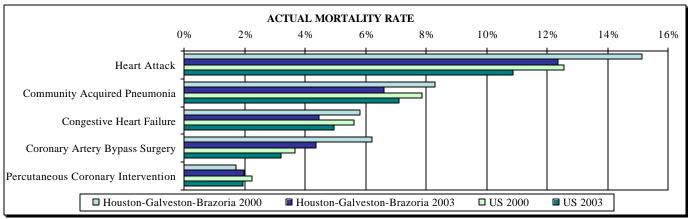
Veteran's Administration Hospital, Dearborn Wayne County Training School, Northville

William Beaumont Hospital, Troy William Beaumont Hospital, Royal Oak William Booth Memorial Hospital, Detroit

Houston-Galveston-Brazoria, TX

Volume by Year and Actual Mortality Rate Comparisons



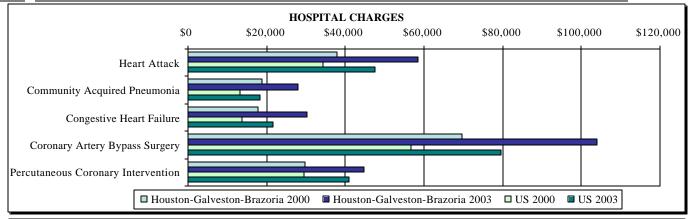


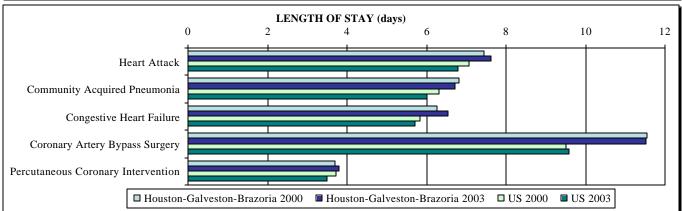
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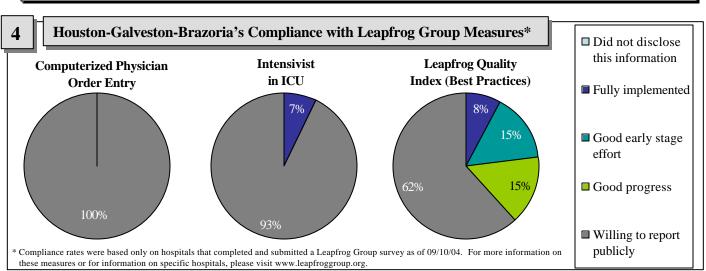
	OBSERVED/EXPECTED RATIO			OBSERVED/EXPECTED RATIO		
	Houston-	Houston-				
	Galveston-	Galveston-	PERCENT	US Average	US Average	PERCENT
	Brazoria 2000	Brazoria 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.19	0.90	24.63%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.07	0.80	25.16%	1.08	0.93	14.07%
Congestive Heart Failure	1.12	0.76	31.56%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.52	0.91	39.99%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.10	1.01	7.88%	1.14	0.92	19.06%

Houston-Galveston-Brazoria, TX

Hospital Charges and Length of Stay Compared to National Averages







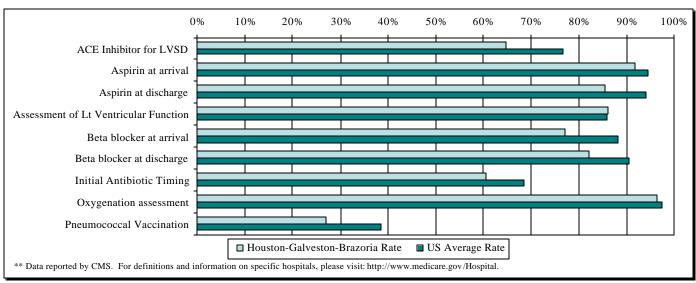
Definitions of Leapfrog Group Measures⁽¹⁾:

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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Houston-Galveston-Brazoria, TX

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative** 5



Definitions of Performance Measures⁽²⁾. These are process measures of quality (are the right things being done at the right time):

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Who Pays for Health Care in Houston-Galveston-Brazoria?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Halliburton Company

ConocoPhillips

Waste Management, Inc.

Sysco Corporation

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Houston-Galveston-Brazoria, TX



Hospitals in the Houston-Galveston-Brazoria CMSA:

Angleton Danbury Medical Center, Angleton Bayshore Medical In Pasadena, Pasadena Bayside Community Hospital, Anahuac Bellaire Medical Center, Houston

Brazosport Memorial Hospital, Lake Jackson Christus St Catherine Health And Wellnes, Katy

Christus St John Hospital, Nassau Bay Christus St Joseph Hospital, Houston

Clear Lake Regional Medical Center, Webster Cleveland Regional Medical Center, Cleveland Conroe Regional Medical Center, Conroe

Cypress Fairbanks Medical Center Hospital, Houston

Dayton Memorial Hospital, Dayton Doctors Hospital Parkway, Houston Doctors Hospital Tidwell, Houston

E Houston Medical Center E Loop Camp, Houston Galveston County Memorial Hospital, Texas City

Harris County Hospital District, Houston

Healthsouth Hospital For Specialized Surgery, Houston

Hermann Hospital, Houston

Houston Community Hospital, Houston Houston Northwest Medical Center, Houston Kingwood Medical Center, Kingwood Liberty Dayton Hospital Inc, Liberty Mainland Medical Center, Texas City

Memorial Hermann Fort Bend Hospital, Missouri City

Memorial Hermann Katy Hospital, Katy Memorial Hospital Memorial City, Houston Memorial Hospital Padadena, Pasadena Memorial Hospital System, Houston

Memorial Hospital The Woodlands, The Woodlands

The Methodist Hospital, Houston

Methodist Sugar Land Hospital, Sugar Land Methodist Willowbrook Hospital, Houston Northeast Medical Center Hospital, Humble

Park Plaza Hospital, Houston

Polly Ryon Hospital Authority, Richmond Riverside General Hospital, Houston San Jacinto Methodist Hospital, Baytown

Shriners Hospital For Crippled Children, Galveston

Spring Branch Medical Center, Houston

St Lukes Community Medical Center The Woodlands, The Woodlands

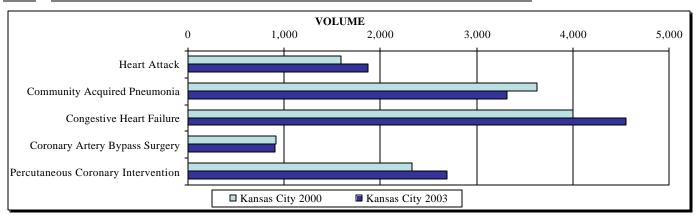
St Lukes Episcopal Hospital, Houston Sugar Land Surgical Hospital, Sugar Land Sweeny Community Hospital, Sweeny Texas Orthopedic Hospital, Houston Tomball Regional Hospital, Tomball Tops Surgical Specialty Hospital, Houston Twelve Oaks Medical Center, Houston

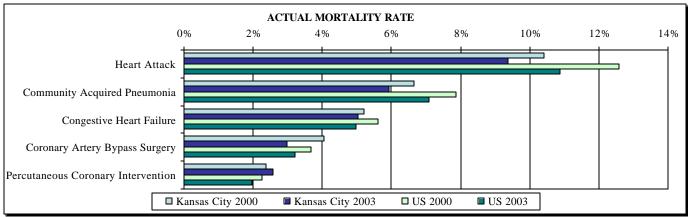
University of Texas M D Anderson Cancer Center, Houston

University of Texas Medical Branch Gal, Galveston US Public Health Service Hospital, Galveston Veteran's Administration Hospital, Houston Vista Medical Center Hospital, Pasadena West Houston Medical Center, Houston Winnie Community Hospital, Winnie

The Womans Hospital of Texas, Houston

Volume by Year and Actual Mortality Rate Comparisons

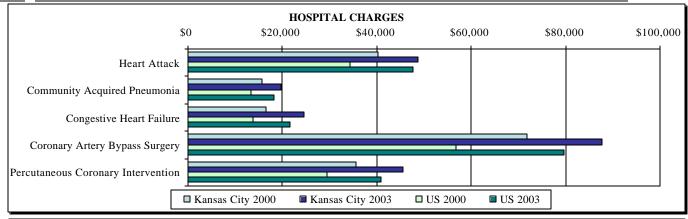


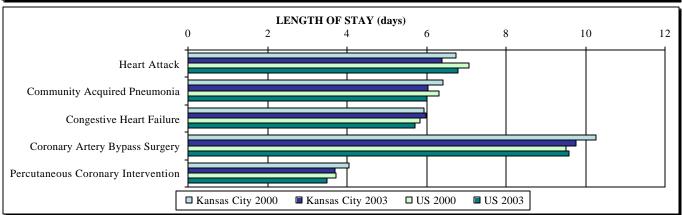


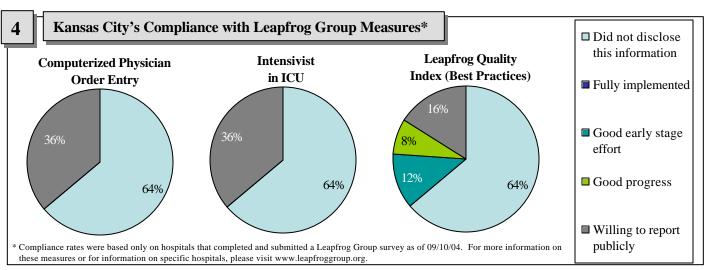
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	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Kansas City	Kansas City	PERCENT	US Average	US Average	PERCENT
	2000	2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.00	0.86	13.38%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.93	0.81	13.57%	1.08	0.93	14.07%
Congestive Heart Failure	1.05	0.92	12.44%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.22	0.88	27.54%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	0.95	1.06	-10.77%	1.14	0.92	19.06%

Hospital Charges and Length of Stay Compared to National Averages





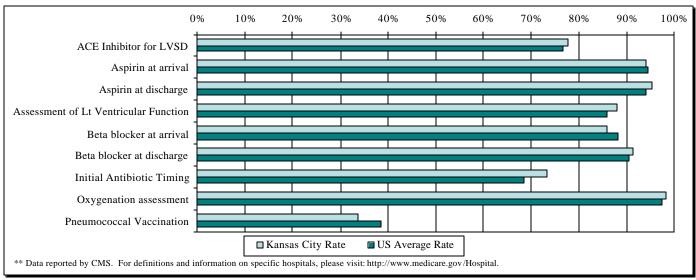


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 $^{^{(1)}\} http://www.leapfroggroup.org/FactSheets.htm$

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- 4. Assessment of Left Ventricular Function: Heart Failure patients with documentation in the hospital record that left ventricular function (LVF) was assessed before arrival, during hospitalization, or is planned for after discharge.

 5. Beta blocker at arrival: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who received a beta blocker within 24 hours after hospital arrival.
- 6. Beta blocker at discharge: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who are prescribed a beta blocker at hospital discharge.
- 7. Initial Antibiotic Timing: Pneumonia patients who receive their first dose of antibiotics within 4 hours after arrival at the hospital.
- 8. Oxygenation assessment: Pneumonia patients who had an assessment of arterial oxygenation by arterial blood gas measurement or pulse oximetry within 24 hours prior to or after arrival at the hospital.
- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.
- (2) http://www.cms.hhs.gov/quality/hospital/

Who Pays for Health Care in Kansas City?⁺

Government (Medicare, Medicaid, State, Local, School Districts) **Sprint Corporation**

Interstate Bakeries Corporation

Yellow Corporation

Farmland Industries, Inc.

⁺ Includes four largest employers

7

Hospitals in the Kansas City MSA:

Baptist Lutheran Medical Center, Kansas City, MO

Cameron Regional Medical, Cameron, MO

The Cancer Institute, Kansas City, MO

Cass Medical Center, Harrisonville, MO

Cushing Memorial Hospital, Leavenworth, KS

Doctors Specialty Hospital Llc, Leawood, KS

Excelsior Springs Medical Center, Excelsior Springs, MO

Heartland Surgical Specialty Hospital, Overland Park, KS

Independence Regional Health Center, Independence, MO

Kansas City Orthopedic Institute, Leawood, KS

Lafayette Regional Health Center, Lexington, MO

Lees Summit Hospital, Lees Summit, MO

Liberty Hospital, Liberty, MO

Meadowbrook Rehabilitation Hospital, Gardner, KS

Medical Center of Independence, Independence, MO

Menorah Medical Center, Overland Park, KS

Miami County Hospital, Paola, KS

Munson Army Hospital, Fort Leavenworth, KS

North Kansas City Hospital, North Kansas City, MO

Olathe Medical Center, Olathe, KS

Overland Park Regional Medical Center, Overland Park, KS

Providence Medical Center, Kansas City, KS

Ray County Memorial Hospital, Richmond, MO

Research Medical Center, Kansas City, MO

Saint John Hospital, Leavenworth, KS

Saint Lukes South Hospital, Overland Park, KS

Shawnee Mission Medical Center, Shawnee Mission, KS

St Joseph Health Center, Kansas City, MO

St Lukes Hospital of Kansas City, Kansas City, MO

St Lukes Northland Hospital, Smithville, MO

St Marys Hospital of Blue Springs, Blue Springs, MO

Truman Medical Center Hospital Hill, Kansas City, MO

Truman Medical Center Lakewood, Kansas City, MO

University of Kansas Hospital, Kansas City, KS

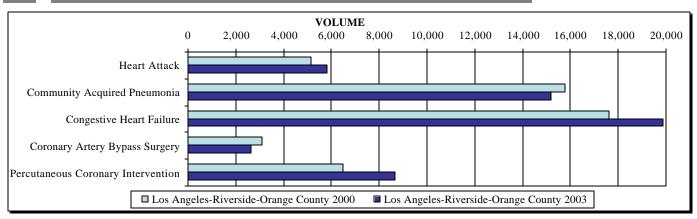
US Penitentiary Hospital, Leavenworth, KS

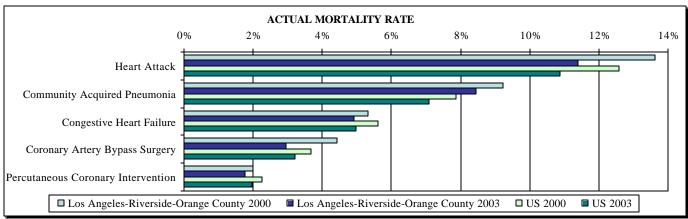
Veteran's Administration Hospital, Kansas City, MO

Veteran's Administration Hospital Wadsworth, Leavenworth, KS

Los Angeles-Riverside-Orange County, CA

Volume by Year and Actual Mortality Rate Comparisons



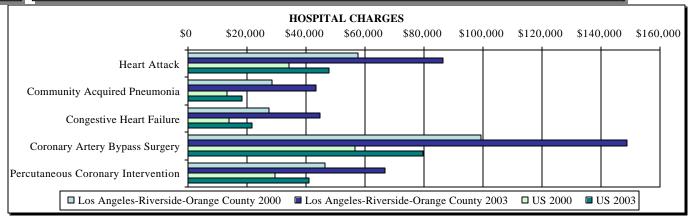


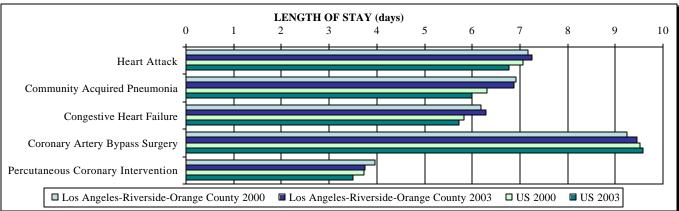
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

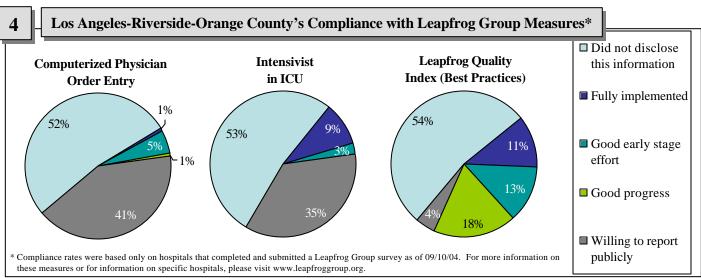
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Los Angeles	Los Angeles	PERCENT	US Average	US Average	PERCENT
	CMSA 2000	CMSA 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.06	0.86	18.97%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.98	0.86	12.53%	1.08	0.93	14.07%
Congestive Heart Failure	0.96	0.81	16.10%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.23	0.74	40.00%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.02	0.81	20.59%	1.14	0.92	19.06%

Los Angeles-Riverside-Orange County, CA

Hospital Charges and Length of Stay Compared to National Averages







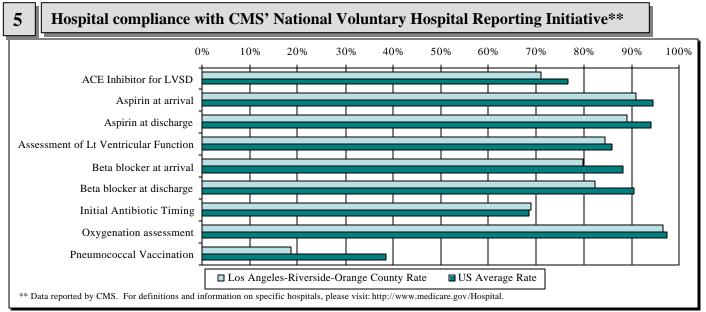
Definitions of Leapfrog Group Measures⁽¹⁾:

^{1.} Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur – at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.

^{2.} Intensivist in ICU: Board-certified physicians who are additionally certified in the subspecialty of critical care medicine, or physicians board-certified in emergency medicine who have completed a critical care fellowship in an ACGME-accredited program, or physicians board-certified in Medicine, Anesthesiology, Pediatrics or Surgery who completed training prior to the availability of subspecialty certification in critical care and who have provided at least six weeks of full-time ICU care annually since 1987.

⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Los Angeles-Riverside-Orange County, CA



Definitions of Performance Measures⁽²⁾. These are process measures of quality (are the right things being done at the right time):

- 1. ACE Inhibitor for LVSD: Acute Myocardial Infarction (AMI) and Heart Failure patients with left ventricular systolic dysfunction (LVSD) and without angiotension converting enzyme inhibitor (ACEI) contraindications who are prescribed an ACEI at hospital discharge.
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- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.



Who Pays for Health Care in the Los Angeles CMSA?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Northrop Grumman Corporation

The Walt Disney Company

Hilton Hotels

Computer Sciences Corporation

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Los Angeles-Riverside-Orange County, CA



Hospitals in the Los Angeles CMSA:

Alhambra Hospital and Medical Center, Alhambra

Anaheim General Hospital, Anaheim

Anaheim Memorial Hospital, Anaheim

Anaheim Memorial Outpatient Tower, Anaheim

Angel's Hospital, Rancho Cucamonga

Antelope Valley Hospital, Lancaster Arrowhead Regional Medical Center, Colton

Avalon Municipal Hospital, Avalon Barstow Community Hospital, Barstow

Bay Harbor Hospital, Harbor City Bear Valley Community Hospital, Big Bear Lake

Bellflower Medical Center, Bellflower

Beverly Hospital, Montebello Brea Community Hospital, Brea Brotman Medical Center, Culver City

California Hospital Medical Center La, Los Angeles

Cedars Sinai Medical Center, Los Angeles Centinela Hospital Medical Center, Inglewood

Century City Hospital, Los Angeles Chapman Medical Center, Orange Chino Valley Medical Center, Chino

Citrus Valley Medical Center Ic Campus, Covina Citrus Valley Medical Center-Qv Campus, West Covina

City of Angels Medical Center, Los Angeles City of Hope National Medical Center, Duarte Coast Plaza Doctors Hospital, Norwalk Coastal Communities Hospital, Santa Ana College Hospital Costa Mesa, Costa Mesa Colorado River Medical Center, Needles Community Hospital of Gardena, Gardena

Community Hospital of Huntington Park, Huntington Park

Community Hospital of Long Beach, Long Beach Community Hospital of San Bernardino, San Bernardino Community Memorial Hospital Of San Buenaventura, Ventura

Corona Regional Medical Center, Corona

Daniel Freeman Marina Hospital, Marina Del Rey Daniel Freeman Memorial Hospital, Inglewood Desert Regional Medical Center, Palm Springs

Desert Valley Hospital, Victorville

Doctors Hospital of West Covina Inc, West Covina Downey Regional Medical Center, Downey

Drs' Hospital Medical Centr of Montclair, Montclair East Los Angeles Doctors Hospital, Los Angeles East Valley Hospital Medical Center, Glendora Eisenhower Medical Center, Rancho Mirage

Encino Tarzana Regional Medical Center - Encino Campus, Encino Encino Tarzana Regional Medical Center - Tarzana Campus, Tarzana

Fairview Developmental Center, Costa Mesa Foothill Presbyterian Hospital, Glendora

Fountain Valley Regional Hospital, Fountain Valley Garden Grove Hospital And Medical Center, Garden Grove

Garfield Medical Center, Monterey Park Glendale Adventist Medical Center, Glendale Glendale Memorial Hospital And Health Center, Glendale

Good Samaritan Hospital, Los Angeles

Greater El Monte Community Hospital, South El Monte

Hemet Valley Medical Center, Hemet

Henry Mayo Newhall Memorial Hospital, Valencia

Hi Desert Medical Center, Joshua Tree

Hoag Memorial Hospital Presbyterian, Newport Beach

Hollywood Community Hospital, Hollywood

Hollywood Presbyterian Medical Center, Los Angeles Huntington Beach Hospital, Huntington Beach Huntington Memorial Hospital, Pasadena

Inland Valley Regional Medical Center, Wildomar

Irvine Regional Hospital, Irvine

Jerry Pettis Memorial Veterans Hospital, Loma Linda John F Kennedy Memorial Hospital Inc, Indio Kaiser Foundation Hospital, Baldwin Park Kaiser Foundation Hospital, Los Angeles Kaiser Foundation Hospital, Harbor City Kaiser Foundation Hospital, Woodland Hills Kaiser Foundation Hospital, Panorama City Kaiser Foundation Hospital, Los Angeles

Kaiser Foundation Hospital, Los Angeles Kaiser Foundation Hospital, Bellflower Kaiser Foundation Hospital Anaheim, Anaheim Kaiser Foundation Hospital Riverside, Riverside Kaiser Permanente Fontana Medical Center, Fontana La County Olive View Ucla Medical Center, Sylmar La Palma Intercommunity Hospital, La Palma Lac Harbor UCLA Medical Center, Torrance

Lac Martin Luther King Jr General Hospital, Los Angeles Lac Rancho Los Amigos National Medical Center, Downey

Lac USC Medical Center, Los Angeles

Lakewood Regional Medical Center, Lakewood Lancaster Community Hospital, Lancaster Lanterman Developmental Center, Pomona

Las Encinas Hospital, Pasadena

Linclon Hospital Medical Center, Los Angeles
Little Company of Mary Hospital, Torrance
Loma Linda University Medical Center, Loma Linda
Long Beach Memorial Medical Center, Long Beach
Los Alamitos Medical Center, Los Alamitos
Los Angeles Community Hospital, Los Angeles
Los Angeles Metropolitan Medical Center, Los Angeles

Los Robles Regional Medical Center, Thousand Oaks Memorial Hospital of Gardena, Gardena

Menifee Valley Medical Center, Sun City Methodist Hospital of Southern California, Arcadia Midway Hospital Medical Center, Los Angeles

Mission Community Hospital Panorama, Panorama City

Mission Hospital, Huntington Park

Mission Hospital Regional Medical Center, Mission Viejo

Monrovia Community Hospital, Monrovia Monterey Park Hospital, Monterey Park Moreno Valley Medical Center, Moreno Valley

(continued)

Los Angeles-Riverside-Orange County, CA



Hospitals in the Los Angeles CMSA:

Motion Picture and Television Hospital, Woodland Hills Mountains Community Hospital, Lake Arrowhead Mountains Community Hospital, Lake Arrowhead Northridge Hospital Medical Center, Northridge

Northridge Hospital Medical Center Sherman Wy, Van Nuys

Ojai Valley Community Hospital, Ojai

Orange Coast Memorial Medical Center, Fountain Valley

Orthopaedic Hospital, Los Angeles

Pacific Alliance Medical Center, Los Angeles Pacific Hospital of Long Beach, Long Beach Pacifica Hospital of The Valley, Sun Valley

Palo Verde Hospital, Blythe

Parkview Community Hospital, Riverside Placentia Linda Hospital, Placentia

Pomona Valley Hospital Medical Center, Pomona Presbyterian Intercommunity Hospital, Whittier Providence Holy Cross Medical Center, Mission Hills Providence Saint Joseph Medical Center, Burbank

Rancho Springs Medical Center, Murrieta Redlands Community Hospital, Redlands Riverside Community Hospital, Riverside

Riverside County Regional Medical Center, Moreno Valley

Robert F Kennedy Medical Center, Hawthorne Saddleback Memorial Medical Center, Laguna Hills

Saint Luke Medical Center, Pasadena San Antonio Community Hospital, Upland

San Clemente Hospital and Medical Center, San Clemente

San Dimas Community Hospital, San Dimas San Gabriel Valley Medical Center, San Gabriel San Gorgonio Memorial Hospital, Banning San Pedro Peninsula Hospital, San Pedro San Vicente Hospital, Los Angeles Santa Marta Hospital, Los Angeles

Santa Marta Hospital and Clinic, Los Angeles Santa Monica UCLA Medical Center, Santa Monica

Santa Paula Memorial Hospital, Santa Paula

Santa Teresita Hospital, Duarte

Sherman Oaks Hospital and Health Center, Sherman Oaks Shriners Hospital For Crippled Children, Los Angeles Simi Valley Hospital And Health Care Service, Simi Valley

South Coast Medical Center, Laguna Beach St Bernardine Medical Center, San Bernardino

St Francis Medical Center, Lynwood

St Johns Hospital Health Center, Santa Monica St Johns Pleasant Valley Hospital, Camarillo St Johns Regional Medical Center, Oxnard St Joseph Hospital Orange, Orange St Jude Medical Center, Fullerton

St Mary Medical Center, Apple Valley St Mary Medical Center, Long Beach St Vincent Medical Center, Los Angeles Surburban Medical Center, Paramount

Temple Community Hospital, Los Angeles Torrance Memorial Medical Center, Torrance Tri City Regional Medical Center, Hawaiian Gardens

Tustin Hospital And Medical Center, Tustin UCLA Medical Center, Los Angeles

University of California Infirmary, Riverside University of California Irvine Medical Center, Orange

University of California Irvine Medical Center, Orange University of Southern California Infirmary, Los Angeles

US Air Force Hospital, Victorville US Air Force Hospital, Riverside US Army Hospital, Fort Irwin US Army Hospital, Fort Macarthur US Naval Hospital, Twentynine Palms US Naval Hospital, Long Beach US Naval Hospital, Barstow US Naval Hospital, Port Hueneme

USC Kenneth Norris Jr Cancer Hospital, Los Angeles

USC University Hospital, Los Angeles

Veteran's Administration Hospital, San Fernando Veteran's Administration Hospital, Sepulveda Veteran's Administration Hospital, Long Beach

Veteran's Administration Hosps Brentwood & Wadsworth, Los Angeles

Valley Plaza Doctors Hospital, Perris Valley Presbyterian Hospital, Van Nuys Ventura County Medical Center, Ventura Verdugo Hills Hospital, Glendale

Victor Valley Community Hospital, Victorville

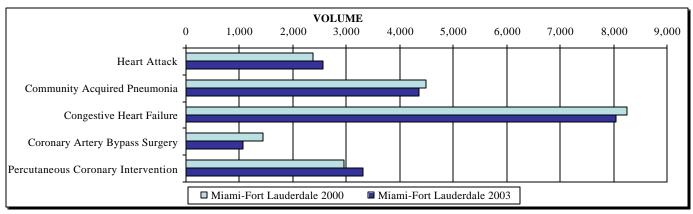
Wadsworth Hospital, Los Angeles West Anaheim Medical Center, Anaheim West Hills Medical Center, Canoga Park Western Medical Center, Santa Ana

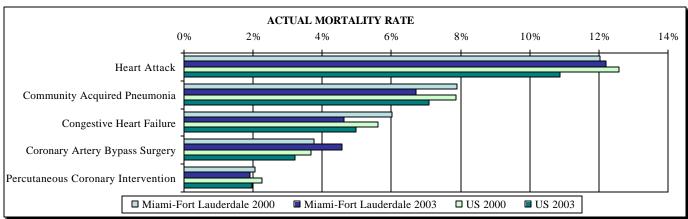
Western Medical Center Hospital Anaheim, Anaheim White Memorial Medical Center, Los Angeles

Whittier Hospital, Whittier

Miami-Fort Lauderdale, FL

Volume by Year and Actual Mortality Rate Comparisons



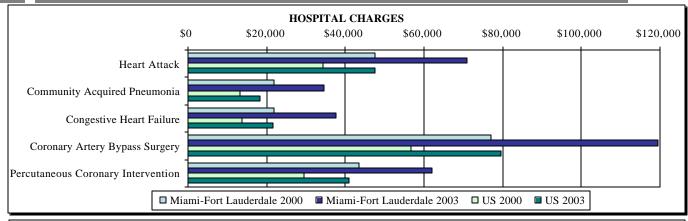


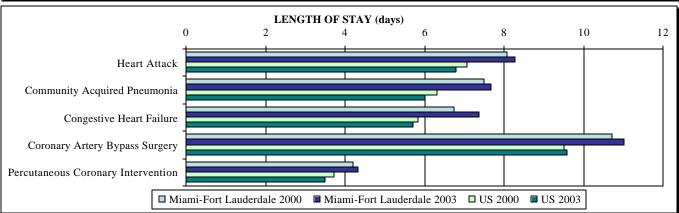
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

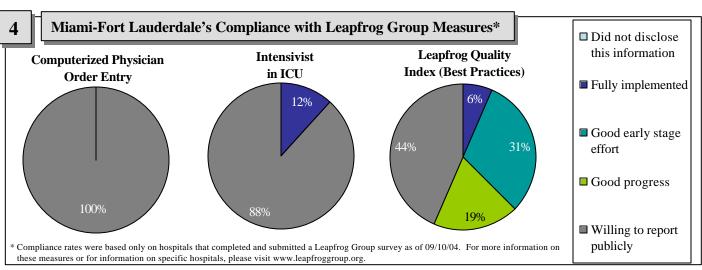
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Miami-Fort	Miami-Fort	PERCENT	US Average	US Average	PERCENT
	Lauderdale 2000	Lauderdale 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	0.91	0.86	5.45%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.81	0.63	22.08%	1.08	0.93	14.07%
Congestive Heart Failure	0.91	0.62	31.26%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.11	1.17	-6.11%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	0.94	0.72	23.09%	1.14	0.92	19.06%

Miami-Fort Lauderdale, FL

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures(1):

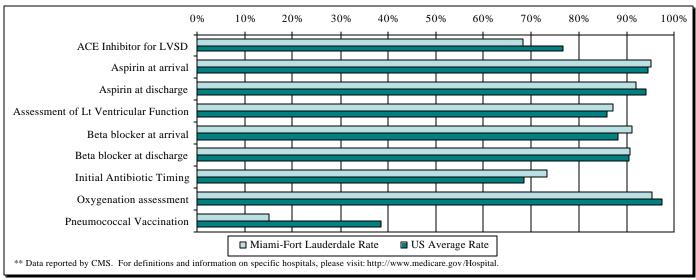
^{1.} Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur – at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.

^{2.} Intensivist in ICU: Board-certified physicians who are additionally certified in the subspecialty of critical care medicine, or physicians board-certified in emergency medicine who have completed a critical care fellowship in an ACGME-accredited program, or physicians board-certified in Medicine, Anesthesiology, Pediatrics or Surgery who completed training prior to the availability of subspecialty certification in critical care and who have provided at least six weeks of full-time ICU care annually since 1987.

⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Miami-Fort Lauderdale, FL

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



Definitions of Performance Measures²². These are process measures of quality (are the right things being done at the right time):

- 1. ACE Inhibitor for LVSD: Acute Myocardial Infarction (AMI) and Heart Failure patients with left ventricular systolic dysfunction (LVSD) and without angiotension converting enzyme inhibitor (ACEI) contraindications who are prescribed an ACEI at hospital discharge
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- (2) http://www.cms.hhs.gov/quality/hospital/

Who Pays for Health Care in Miami-Fort Lauderdale?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

AutoNation, Inc.

Ryder System, Inc.

Republic Services, Inc.

Lennar Corp.

⁺ Includes four largest employers

Miami-Fort Lauderdale, FL



Hospitals in the Miami-Fort Lauderdale CMSA:

Anne Bates Leach Eye Hospital, Miami

Aventura Hospital and Medical Center, Aventura

Baptist Hospital of Miami Inc, Miami

Broward General Medical Center, Fort Lauderdale

Cedars Medical Center Inc, Miami

Cleveland Clinic Hospital, Weston

Coral Gables Hospital, Coral Gables

Coral Ridge Psychiatric Hospital, Fort Lauderdale

Coral Springs Medical Center, Coral Springs

Deering Hospital, Miami

Douglas Gardens Hospital, Miami

Florida Medical Center, Lauderdale Lakes

Healthsouth Doctors Hospital, Coral Gables

Hialeah Hospital, Hialeah

Hollywood Medical Center, Hollywood

Holy Cross Hospital, Fort Lauderdale

Homestead Hospital Inc, Homestead

Imperial Point Medical Center, Fort Lauderdale

Jackson Memorial Hospital, Miami

Kendall Medical Center, Miami

Larkin Community Hospital, South Miami

Memorial Hospital Pembroke, Pembroke Pines

Memorial Hospital West, Pembroke Pines

Memorial Regional Hospital, Hollywood

Mercy Hospital Inc, Miami

Mount Sinai Medical Center, Miami Beach

North Broward Medical Center, Pompano Beach

North Ridge Medical Center, Fort Lauderdale

North Shore Medical Center, Miami

Northwest Medical Center, Margate

Palm Springs General Hospital, Hialeah

Palmetto General Hospital, Hialeah

Pan American Hospital, Miami

Parkway Regional Medical Center, North Miami Beach

Plantation General Hospital, Plantation

Sister Emmanuel Hospital Cc, Miami

South Miami Hospital Inc, Miami

South Shore Hospital and Medical Center, Miami Beach

University Hospital and Medical Center, Tamarac

University of Miami Hospital and Clinic, Miami

US Air Force Hospital, Homestead

Variety Childrens Hospital, Miami

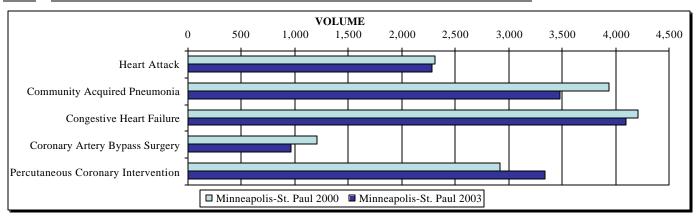
Westchester General Hospital, Miami

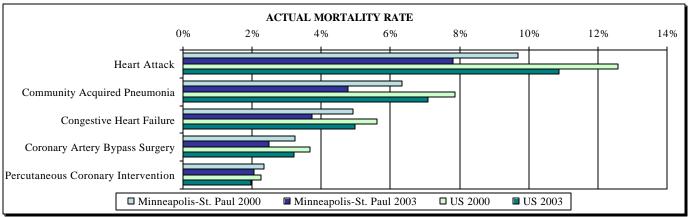
Westside Regional Medical Center, Plantation

MINNEAPOLIS METROPOLITAN STATISTICAL AREA (MSA) HOSPITAL QUALITY FACT SHEET

Minneapolis-St. Paul, MN-WI

Volume by Year and Actual Mortality Rate Comparisons





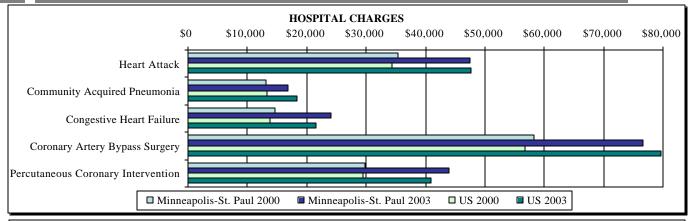
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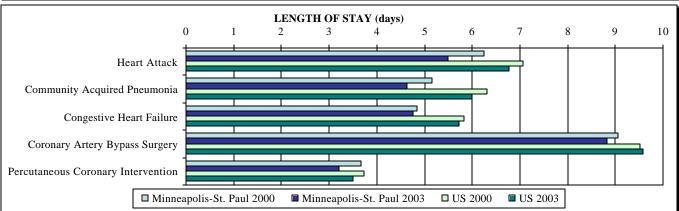
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	Minneapolis-	Minneapolis-	PERCENT	US Average	US Average	PERCENT
	St. Paul 2000	St. Paul 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	0.85	0.69	19.13%	1.12	0.93	16.77%
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Coronary Artery Bypass Surgery	1.18	0.71	39.77%	1.15	0.91	20.68%
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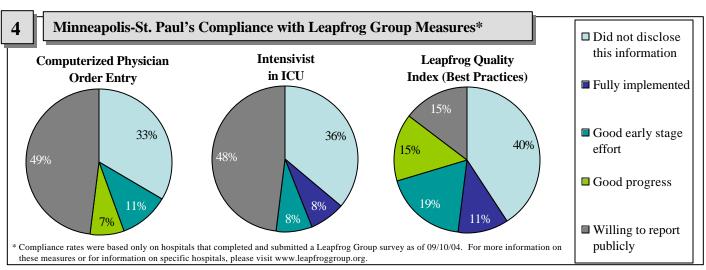
MINNEAPOLIS METROPOLITAN STATISTICAL AREA (MSA) HOSPITAL QUALITY FACT SHEET

Minneapolis-St. Paul, MN-WI

Hospital Charges and Length of Stay Compared to National Averages







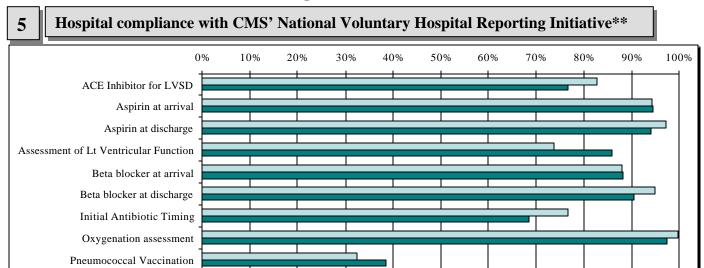
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

MINNEAPOLIS METROPOLITAN STATISTICAL AREA (MSA) HOSPITAL QUALITY FACT SHEET

Minneapolis-St. Paul, MN-WI



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1. ACE Inhibitor for LVSD: Acute Myocardial Infarction (AMI) and Heart Failure patients with left ventricular systolic dysfunction (LVSD) and without angiotension converting enzyme inhibitor (ACEI)

■ US Average Rate

- contraindications who are prescribed an ACEI at hospital discharge.

 2. Aspirin at arrival: Acute Myocardial Infarction (AMI) patients without aspirin contraindications who received aspirin within 24 hours before or after hospital arrival.
- Aspirin at discharge: Acute Myocardial Infarction (AMI) patients without aspirin contraindications who are prescribed aspirin at hospital discharge.

** Data reported by CMS. For definitions and information on specific hospitals, please visit: http://www.medicare.gov/Hospital.

- 4. Assessment of Left Ventricular Function: Heart Failure patients with documentation in the hospital record that left ventricular function (LVF) was assessed before arrival, during hospitalization, or is planned for after discharge.
- 5. Beta blocker at arrival: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who received a beta blocker within 24 hours after hospital arrival.

■ Minneapolis-St. Paul Rate

- 6. Beta blocker at discharge: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who are prescribed a beta blocker at hospital discharge.
- Initial Antibiotic Timing: Pneumonia patients who receive their first dose of antibiotics within 4 hours after arrival at the hospital.
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⁽²⁾ http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in Minneapolis-St. Paul?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Target Corporation

Best Buy Co. Inc.

3M Company

Supervalu Inc.

Hospitals in the Minneapolis-St. Paul MSA:

Abbott Northwestern Hospital Inc, Minneapolis, MN Baldwin Area Medical Center, Baldwin, WI

Buffalo Hospital, Buffalo, MN

Cambridge Medical Center, Cambridge, MN

Fairview Lakes Regional Medical Center, Wyoming, MN

Fairview Ridges Hospital, Burnsville, MN

Fairview Southdale Hospital, Edina, MN

Fairview University Medical Center, Minneapolis, MN

Healtheast St John's Hospital, Maplewood, MN

Healtheast Woodwinds Hospital, Woodbury, MN Hennepin County Medical Center, Minneapolis, MN

Holy Family Hospital, New Richmond, WI

Hudson Hospital, Hudson, WI

Lakeview Memorial Hospital, Stillwater, MN

Mercy Hospital, Coon Rapids, MN

Monticello Big Lake Community Hospital, Monticello, MN

North Memorial Medical Center, Robbinsdale, MN

Park Nicollet Health Services, Saint Louis Park, MN

Phillips Eye Institute, Minneapolis, MN

Queen of Peace Hospital, New Prague, MN

Regina Medical Complex, Hastings, MN

Regions Hospital, Saint Paul, MN

Ridgeview Medical Center, Waconia, MN

River Falls Area Hsptl, River Falls, WI

St Francis Regional Medical Center, Shakopee, MN

St Josephs Hospital, Saint Paul, MN

United Hospitals Inc, Saint Paul, MN

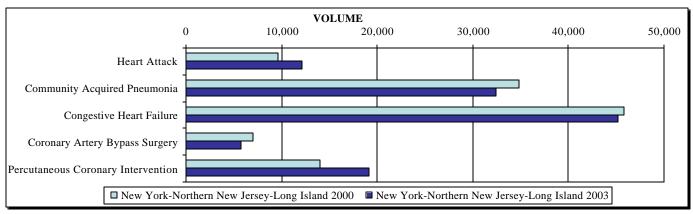
Unity Hospital, Fridley, MN

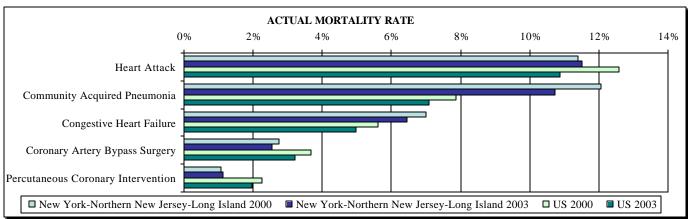
Veteran's Administration Hospital, Minneapolis, MN

⁺ Includes four largest employers

New York-Northern New Jersey-Long Island, NY-NJ-CT-PA

Volume by Year and Actual Mortality Rate Comparisons



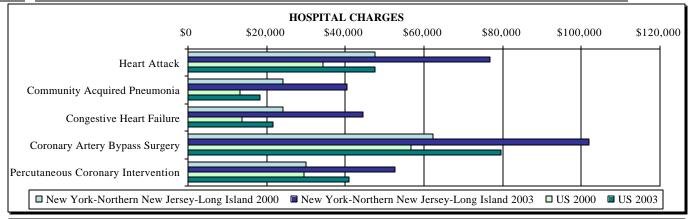


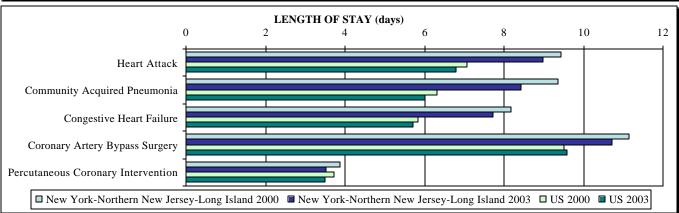
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

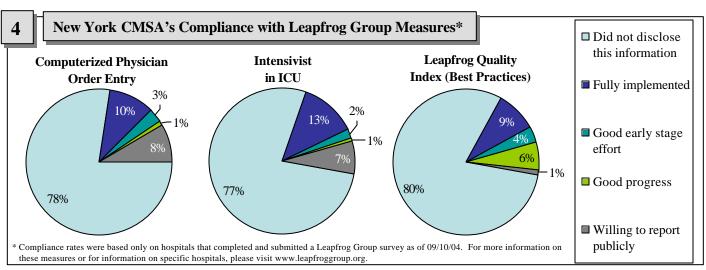
	OBSERVED/EXPECTED RATIO			OBSERVED/EX		
	New York	New York	PERCENT	US Average	US Average	PERCENT
	CMSA 2000	CMSA 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.12	1.04	7.16%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.26	1.11	11.73%	1.08	0.93	14.07%
Congestive Heart Failure	1.26	1.07	15.29%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	0.93	0.76	17.90%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	0.71	0.71	0.56%	1.14	0.92	19.06%

New York-Northern New Jersey-Long Island, NY-NJ-CT-PA

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures⁽¹⁾:

- 1. Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

New York-Northern New Jersey-Long Island, NY-NJ-CT-PA

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative** 5



Definitions of Performance Measures⁽²⁾. These are process measures of quality (are the right things being done at the right time):

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- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.



Who Pays for Health Care in the New York CMSA?⁺

Government (Medicare, Medicaid, State, Local, School Districts) **International Business Machines Corporation**

Citigroup, Inc.

Verizon Communications Inc.

Altria Group, Inc.

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

New York-Northern New Jersey-Long Island, NY-NJ-CT-PA



Hospitals in the New York CMSA:

Arden Hill Hospital, Goshen, NY Barnert Hospital, Paterson, NJ Bayonne Medical Center, Bayonne, NJ Bayshore Community Hospital, Holmdel, NJ Bellevue Hospital Center, New York, NY Bergen Regional Medical Center, Paramus, NJ

Beth Israel Hospital, Passaic, NJ

Beth Israel Medical Center, New York, NY
Blythedale Childrens Hospital, Valhalla, NY
Bon Secours Community Hospital, Port Jervis, NY
Bronx Lebanon Hospital Center, Bronx, NY
Brookdale Hospital Medical Center, Brooklyn, NY
Brooklyn Hospital Center, Brooklyn, NY
Brooklyn Hospital Center, Brooklyn, NY
Brunswick Hospital, Amityville, NY
Cabrini Medical Center, New York, NY
Capital Health System- Mercer, Trenton, NJ
Capital Health Systems At Fuld, Trenton, NJ

Catholic Medical Center Of Brooklyn Queens, Jamaica, NY

Central Suffolk Hospital, Riverhead, NY Centrastate Medical Center, Freehold, NJ Childrens Specialized Hospital, Westfield, NJ Chilton Memorial Hospital, Pompton Plains, NJ

Christ Hospital, Jersey City, NJ

City Hospital Center At Elmhurst, Flushing, NY Clara Maass Medical Center, Belleville, NJ

Columbus Hospital, Newark, NJ

Community Medical Center, Toms River, NJ Coney Island Hospital, Brooklyn, NY Cornwall Hospital The, Cornwall, NY Dobbs Ferry Hospital, Dobbs Ferry, NY East Orange General Hospital, East Orange, NJ Eastern Long Island Hospital, Greenport, NY

Englewood Hospital And Medical Center, Englewood, NJ

Flushing Hospital Medical Center, Flushing, NY Franklin General Hospital, Valley Stream, NY

Freeport Hospital, Freeport, NY

General Hospital Center At Passaic, Passaic, NJ Good Samaritan Hospital, West Islip, NY

Good Samaritan Hospital Of Suffern, Suffern, NY Greenmont On Hudson Hospital, Ossining, NY

Greenville Hospital, Jersey City, NJ

Hackensack University Medical, Hackensack, NJ Hackettstown Community Hospital, Hackettstown, NJ

Hamilton Hospital, Trenton, NJ

Harlem Hospital Center, New York, NY Holy Name Hospital, Teaneck, NJ

Horton Memorial Hospital, Middletown, NY Hospital Center At Orange, Orange, NJ Hospital For Special Surgery, New York, NY

House Of St Giles, Brooklyn, NY

Hudson Valley Hospital Center, Peekskill, NY Hunterdon Medical Center, Flemington, NJ Huntington Hospital, Huntington, NY Interfaith Medical Center, Brooklyn, NY Irvington General Hospital, Irvington, NJ Island Medical Center, Hempstead, NY Jacobi Medical Center, Bronx, NY Jamaica Hospital, Jamaica, NY

Jersey City Medical Center, Jersey City, NJ

Jersey Shore University Medical Center, Neptune, NJ

John F Kennedy Medical Center, Edison, NJ

John T Mather Memorial Hospital, Port Jefferson, NY

Julia Butterfield Hospital, Cold Spring, NY Kimball Medical Center, Lakewood, NJ Kings County Hospital Center, Brooklyn, NY Kingsbrook Jewish Medical Center, Brooklyn, NY

Lawrence Hospital, Bronxville, NY Lenox Hill Hospital, New York, NY

Lincoln Medical And Mental Health Center, Bronx, NY Little Neck Community Hospital, Little Neck, NY Long Beach Memorial Hospital, Long Beach, NY Long Island College Hospital, Brooklyn, NY

Long Island Jewish Medical Center, New Hyde Park, NY

Lutheran Medical Center, Brooklyn, NY Maimonides Medical Center, Brooklyn, NY

Manhattan Eye Ear Throat Hospital, New York, NY Meadowlands Hospital Medical Center, Secaucus, NJ Memorial Hospital For Cancer And Allie, New York, NY

Mercy Medical Center, Rockville Centre, NY Metropolitan Hospital Center, New York, NY

Middlesex Rehabilitation Hospital, North Brunswick, NJ

Monmouth Medical Center, Long Branch, NJ Montclair Community Hospital, Montclair, NJ Montefiore Medical Center, Bronx, NY Morristown Memorial Hospital, Morristown, NJ Mount Sinai Hospital Of Queens, Long Island City, NY

Mountainside Hospital, Montclair, NJ

Mt Carmel Hospital For Alcoholism, Paterson, NJ

Mt Sinai Hospital, New York, NY Mt Vernon Hospital, Mount Vernon, NY

Muhlenberg Regional Medical Center, Plainfield, NJ Nassau County Medical Center, East Meadow, NY New Jersey State Prison Farm Hospital, Rahway, NJ New Jersey State Prison Hospital, Trenton, NJ New Jersey Training School, Totowa, NJ

New York Community Hospital Of Brooklyn, Brooklyn, NY

New York Eye And Ear Infirmary, New York, NY

New York Hospital Medical Center Of Queens The, Flushing, NY

New York Methodist Hospital, Brooklyn, NY New York Presbyterian Hospital, New York, NY

New York United Hospital Medical Center, Port Chester, NY New York Westchester Square Medical Center, Bronx, NY

Newark Beth Israel Medical Center, Newark, NJ

New-Island Hospital, Bethpage, NY Newton Memorial Hospital, Newton, NJ

(continued)

New York-Northern New Jersey-Long Island, NY-NJ-CT-PA



Hospitals in the New York CMSA:

North Central Bronx Hospital, Bronx, NY North General Hospital, New York, NY

North Shore University Hospital, Manhasset, NY

North Shore University Hospital At Forest Hills, Forest Hills, NY

North Shore University Hospital At Glen Cove, Glen Cove, NY North Shore University Hospital At Plainview, Plainview, NY

Northern Dutchess Hospital, Rhinebeck, NY Northern Westchester Hospital, Mount Kisco, NY

Nyack Hospital, Nyack, NY

Nyu Downtown Hospital, New York, NY

Nyu Medical Center University Hospital, New York, NY

Ocean Medical Center, Brick, NJ

Oceanside Gardens Sanitarium, Oceanside, NY

Orthopaedic Institute, New York, NY

Our Lady Of Mercy Medical Center Flor D'urso, Bronx, NY

Overlook Hospital, Summit, NJ

Palisades General Hospital, North Bergen, NJ

Parkway Hospital, Forest Hills, NY
Pascack Valley Hospital, Westwood, NJ
Pearl River General Hospital, Pearl River, NY
Pelham Bay General Hospital, Bronx, NY
Peninsula Hospital Center, Far Rockaway, NY
Phelps Memorial Hospital, North Tarrytown, NY

Preakness Hospital, Paterson, NJ
Presbyterian Hospital, New York, NY
Putnam Hospital Center, Carmel, NY
Queens Hospital Center, Jamaica, NY
Raritan Bay Medical Center, Perth Amboy, NJ
Riverview Medical Center, Red Bank, NJ

Robert Wood Johnson University Hospital, New Brunswick, NJ Robert Wood Johnson University Hospital at Rahway, Rahway, NJ

Rockefeller University Hospital, New York, NY Rockefeller University Hospital, New York, NY RWJ University Hospital at Hamilton, Hamilton, NJ

Somerset Medical Center, Somerville, NJ Sound Shore Medical Center, New Rochelle, NY South Nassau Community Hospital, Oceanside, NY

Southampton Hospital, Southampton, NY

Southern Ocean County Hospital, Manahawkin, NJ

Southside Hospital, Bay Shore, NY St Agnes Hospital, White Plains, NY

St Anthony Community Hospital, Warwick, NY

St Barnabas Hospital, Bronx, NY

St Barnabas Medical Center, Livingston, NJ

St Catherine Of Siena Medical Center, Smithtown, NY

St Charles Hospital, Port Jefferson, NY

St Clares Hospital Health Center, New York, NY St Clares Hospital/ Denville, Denville, NJ

St Clares Hospital/ Sussex, Sussex, NJ St Francis Hospital, Poughkeepsie, NY St Francis Hospital, Roslyn, NY St Francis Medical Center, Trenton, NJ

St James Hospital, Newark, NJ

St Johns Espiscopal Hospital, Far Rockaway, NY

St Johns Riverside Hospital, Yonkers, NY

St Josephs Hospital, Yonkers, NY St Josephs Hospital, Paterson, NJ

St Josephs Wayne Hospital, Wayne, NJ

St Lukes Roosevelt Hospital, New York, NY St Marys Hospital, Hoboken, NJ

St Marys Hospital, Passaic, NJ

St Michaels Medical Center, Newark, NJ

St Peters University Hospital, New Brunswick, NJ St Vincents Hospital Medical Center, New York, NY

Staten Island University Hospital, Staten Island, NY

Stony Lodge Hospital, Ossining, NY

Svcmc - St Vincents Staten Island, Staten Island, NY

Trinitas Hospital, Elizabeth, NJ Trinitas Hospital, Elizabeth, NJ

Umdnj University Hospital, Newark, NJ

Union Hospital, Union, NJ

University Hospital, Suny Stony Brook, NY University Hospital Of Brooklyn, Brooklyn, NY University Medical Center At Princeton, Princeton, NJ

US Army Hospital, West Point, NY US Army Hospital, Fort Monmouth, NJ US Naval Hospital, Lakehurst, NJ US Naval Hospital, Saint Albans, NY

US Public Health Service Hospital, Staten Island, NY Veteran's Administration Hospital, Northport, NY Veteran's Administration Hospital, Bronx, NY Veteran's Administration Hospital, Brooklyn, NY Veteran's Administration Hospital, Castle Point, NY Veteran's Administration Hospital, New York, NY Veteran's Administration Hospital, Montrose, NY Veteran's Administration Hospital, East Orange, NJ Veteran's Administration Hospital, Lyons, NJ

Valley Hospital, Ridgewood, NJ

Vassar Brothers Hospital, Poughkeepsie, NY Victory Memorial Hospital, Brooklyn, NY Walter Matheny School Infirmary, Peapack, NJ

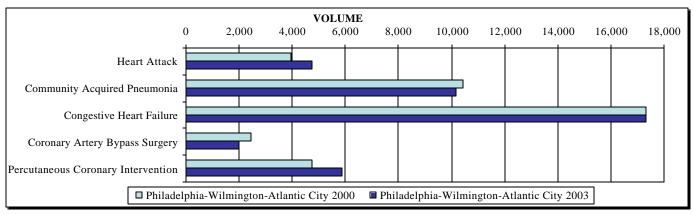
Warren Hospital, Phillipsburg, NJ West Hudson Hospital, Kearny, NJ Westchester Medical Center, Valhalla, NY White Plains Hospital Center, White Plains, NY Willowbrook State School, Staten Island, NY Winthrop University Hospital, Mineola, NY

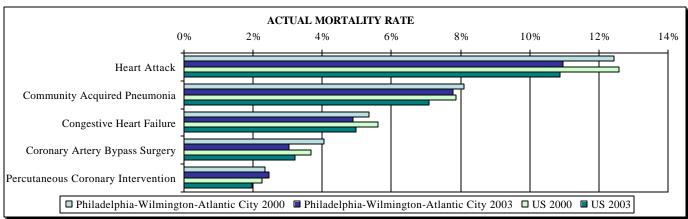
Woodbridge State School And Hospital, Woodbridge, NJ Woodhull Medical Mental Health Center, Brooklyn, NY

Wyckoff Heights Hospital, Brooklyn, NY

Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD

Volume by Year and Actual Mortality Rate Comparisons



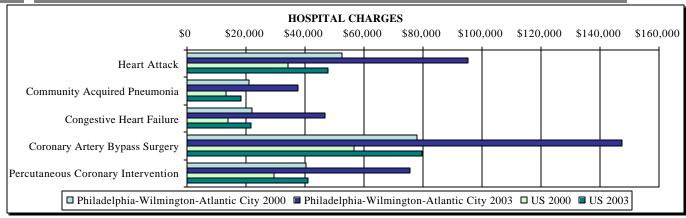


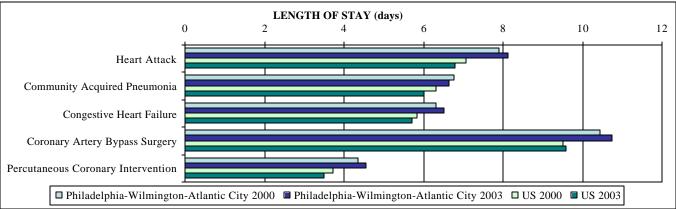
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

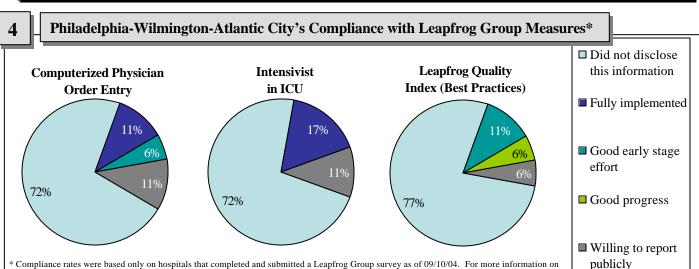
	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EX	PECTED RATIO	
	Philadelphia	Philadelphia	PERCENT	US Average	US Average	PERCENT
	CMSA 2000	CMSA 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.14	0.99	13.46%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.00	0.98	2.01%	1.08	0.93	14.07%
Congestive Heart Failure	1.04	0.86	16.87%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.14	0.77	32.24%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.02	1.04	-2.42%	1.14	0.92	19.06%

Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures⁽¹⁾:

these measures or for information on specific hospitals, please visit www.leapfroggroup.org.

3

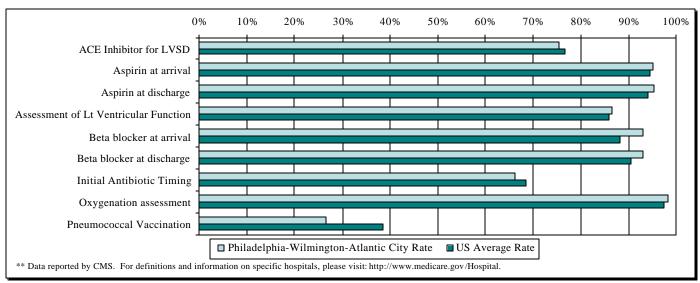
^{1.} Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur – at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.

^{2.} Intensivist in ICU: Board-certified physicians who are additionally certified in the subspecialty of critical care medicine, or physicians board-certified in emergency medicine who have completed a critical care fellowship in an ACGME-accredited program, or physicians board-certified in Medicine, Anesthesiology, Pediatrics or Surgery who completed training prior to the availability of subspecialty certification in critical care and who have provided at least six weeks of full-time ICU care annually since 1987.

⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative** 5



Definitions of Performance Measures²². These are process measures of quality (are the right things being done at the right time):

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- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.

Who Pays for Health Care in the Philadelphia CMSA?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Aramark Corporation Comcast Corporation E.I. du Pont de Nemours

CIGNA Corporation

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD



Hospitals in the Philadelphia CMSA:

Abington Memorial Hospital, Abington, PA Albert Einstein Medical Center, Philadelphia, PA

Allegheny University Hospital Elkins Park, Elkins Park, PA Allegheny University Hospitals Bucks, Warminster, PA Atlantic City Medical Center, Atlantic City, NJ Bariatric Care Centers Of Pennsylvania, Langhorne, PA

Betty Bacharach Home, Longport, NJ Brandywine Hospital, Coatesville, PA

Burdette Tomlin Memorial Hospital, Cape May Court House, NJ

Central Montgomery Medical Center, Lansdale, PA Chester County Hospital, West Chester, PA Chestnut Hill Hospital, Philadelphia, PA Childrens Seashore Hospital, Atlantic City, NJ Christiana Care Health Services, Wilmington, DE Coatesville Va Medical Center, Coatesville, PA Cooper Hospital University Medical Center, Camden, NJ

Crozer Chester Medical Center, Chester, PA Deborah Heart And Lung Center, Browns Mills, NJ Delaware County Memorial Hospital, Drexel Hill, PA

Doylestown Hospital, Doylestown, PA

Dufur Hospital, Ambler, PA Eagleville Hospital, Eagleville, PA Episcopal Hospital, Philadelphia, PA Frankford Hospital, Philadelphia, PA Graduate Hospital, Philadelphia, PA Grand View Hospital, Sellersville, PA

Hahnemann University Hospital, Philadelphia, PA Hahnemann University Hospital, Philadelphia, PA

Holy Redeemer Hospital And Medical Center, Meadowbrook, PA Hospital Of The Fox Chase Cancer Cente, Philadelphia, PA Hospital Of University Of Pennsylvania, Philadelphia, PA

Jeanes Hospital, Philadelphia, PA

Jennersville Regional Hospital, West Grove, PA

Kennedy Memorial Hospital University Medical Center, Stratford, NJ

Kensington Hospital, Philadelphia, PA Kessler Memorial Hospital, Hammonton, NJ

Lourdes Medical Center Of Burlington County, Willingboro, NJ Main Line Hospital Bryn Mawr Campus, Bryn Mawr, PA

Main Line Hospital Inc Paoli, Paoli, PA

Main Line Hospitals Inc Lankenau, Wynnewood, PA

Malvern Institute, Malvern, PA Mcp Medical Center, Philadelphia, PA Memorial Hospital Of Salem County, Salem, NJ Mercy Fitzgerald Hospital, Darby, PA

Mercy Suburban Hospital, Norristown, PA Methodist Hospital, Philadelphia, PA

Metropolitan Hospital Parkview, Philadelphia, PA

Montgomery Hospital, Norristown, PA Nazareth Hospital, Philadelphia, PA

New Lisbon State Colony Hospital, New Lisbon, NJ

Newcomb Medical Center, Vineland, NJ Northeastern Hospital, Philadelphia, PA Our Lady Of Lourdes Hospital, Camden, NJ Parkview Hospital, Philadelphia, PA Pennsylvania Hospital The, Philadelphia, PA Perry Point Va Medical Center, Perry Point, MD Philadelphia Va Medical Center, Philadelphia, PA

Phoenixville Hospital University Of Pa Health System, Phoenixville, PA

Pottstown Memorial Medical Center, Pottstown, PA

Riddle Memorial Hospital, Media, PA Roxborough Memorial Hospital, Phila, PA Shore Memorial Hospital, Somers Point, NJ

South Jersey Hospital, Elmer, NJ

South Jersey Hospital System, Bridgeton, NJ St Agnes Medical Center, Philadelphia, PA St Francis Hospital Inc, Wilmington, DE St Joseph Hospital, Philadelphia, PA

St Lukes Quakertown Hospital, Quakertown, PA St Mary Medical Center, Langhorne, PA State Colony Hospital, Woodbine, NJ

State Correctional Institute Hospital, Philadelphia, PA State Correctional Institute Hospital, Graterford, PA

Temple East Inc, Philadelphia, PA Temple Lower Bucks Hospital, Bristol, PA Temple University Hospital, Philadelphia, PA

Thomas Jefferson University Hospital, Philadelphia, PA Underwood Memorial Hospital, Woodbury, NJ

Union Hospital Cecil County, Elkton, MD

University Of Pennsylvania Medical Center Presbyterian, Philadelphia, PA

US Army Hospital, Fort Dix, NJ

Valley Forge Medical Center And Hospital, Norristown, PA

Vineland State School Hospital, Vineland, NJ

Virtua Health-Memorial Hospital Burlington County, Mount Holly, NJ

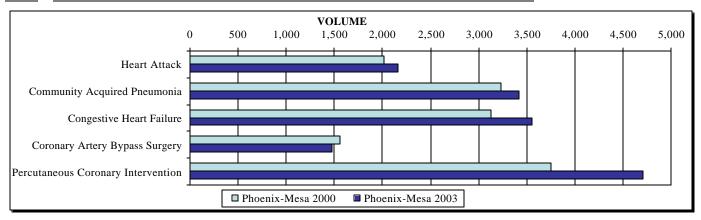
Virtua Health-West Jersey Hospital Camden, Voorhees, NJ

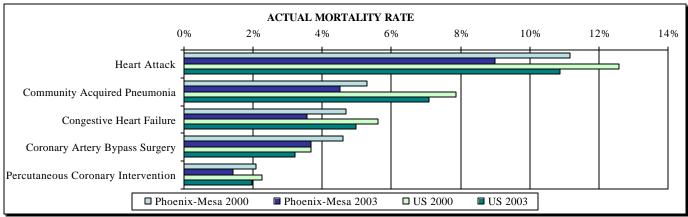
Warminster Hospital, Warminster, PA Wills Eye Hospital, Philadelphia, PA

Wilmington VA Medical and Regional Office Center, Wilmington, DE

Phoenix-Mesa, AZ

Volume by Year and Actual Mortality Rate Comparisons



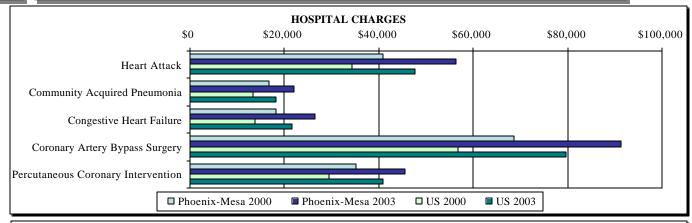


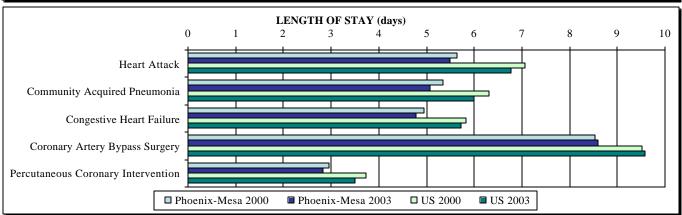
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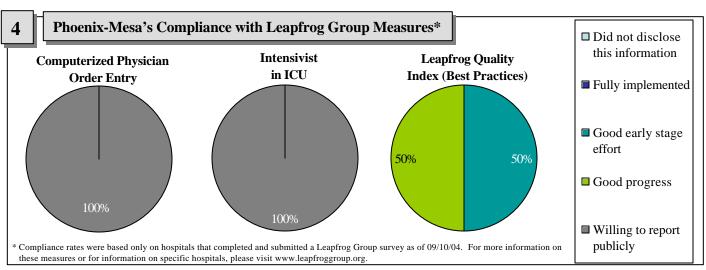
	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EXPECTED RATIO		
	Phoenix-	Phoenix-	PERCENT	US Average	US Average	PERCENT
	Mesa 2000	Mesa 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.00	0.74	25.58%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.76	0.58	24.01%	1.08	0.93	14.07%
Congestive Heart Failure	0.87	0.59	32.48%	1.14	0.91	20.21%
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Phoenix-Mesa, AZ

Hospital Charges and Length of Stay Compared to National Averages







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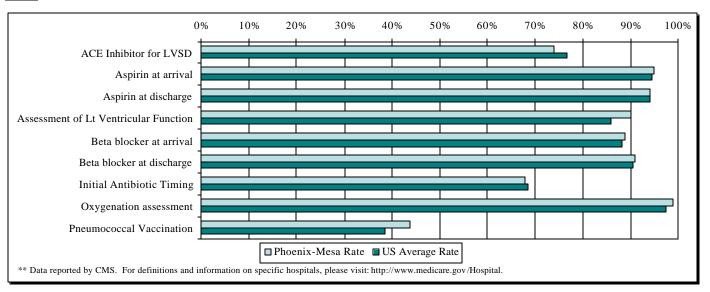
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 $^{^{(1)}\} http://www.leapfroggroup.org/FactSheets.htm$

Phoenix-Mesa, AZ

5

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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- (2) http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in Phoenix-Mesa?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Allied Waste Industries

PetsMart, Inc.

Swift Transportation Company, Inc.

Phelps Dodge Corporation

⁺ Includes four largest employers

Phoenix-Mesa, AZ



Hospitals in the Phoenix-Mesa MSA:

Arizona Heart Hospital, Phoenix

Arizona Spine And Joint Hospital, Mesa

Arizona Surgical Hospital, Phoenix

Arrowhead Community Hosp Med Center, Glendale

Banner Baywood Heart Hospital, Mesa

Banner Baywood Medical Center, Mesa

Banner Desert Medical Center, Mesa

Banner Good Samaritan Medical Center, Phoenix

Banner Mesa Medical Center, Mesa

Banner Thunderbird Samaritan Medical Center, Glendale

Casa Grande Regional Medical Center, Casa Grande

Chandler Regional Hospital, Chandler

Crippled Childrens Hospital, Phoenix

Del E Webb Memorial Hospital, Sun City West

Franklin Hospital, Phoenix

Hu Hu Kam Memorial Hospital, Sacaton

John C Lincoln Hospital Deer Valley, Phoenix

John C Lincoln Hospital North Mountain, Phoenix

Magma Copper Corporation Hospital, Superior

Maricopa Medical Center, Phoenix

Maryvale Hospital, Phoenix

Mayo Clinic Hospital, Phoenix

Mesa General Hospital Medical Center, Mesa

Paradise Valley Hospital, Phoenix

Phoenix Baptist Hospital And Medical Center, Phoenix

Phoenix Memorial Hospital, Phoenix

Phoenix Specialty Medical Center, Phoenix

Phs Indian Medical Center, Phoenix

San Manuel Division Hospital Magma Copper County, San M

Scottsdale Healthcare Osborn, Scottsdale

Scottsdale Healthcare Shea, Scottsdale

St Joseph's Hospital Medical Center, Phoenix

St Luke's Medical Center, Phoenix

Tempe St Luke's Hospital, Tempe

US Air Force Hospital, Glendale

US Air Force Hospital, Chandler

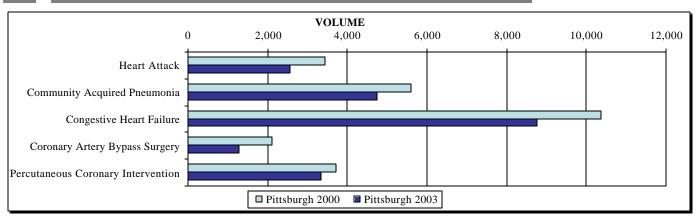
Veteran's Administration Hospital, Phoenix

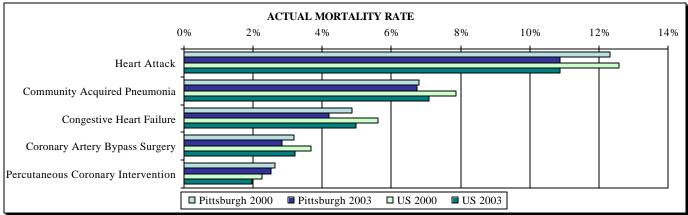
Walter O Boswell Memorial Hospital, Sun City

West Valley Hospital Medical Center, Goodyear

Wickenburg Regional Hospital, Wickenburg

Volume by Year and Actual Mortality Rate Comparisons

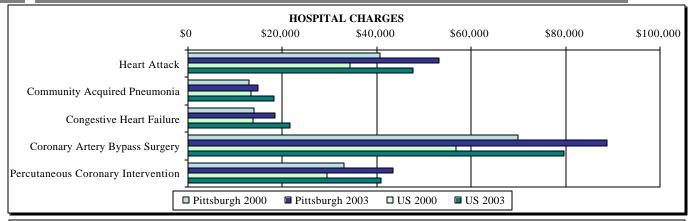


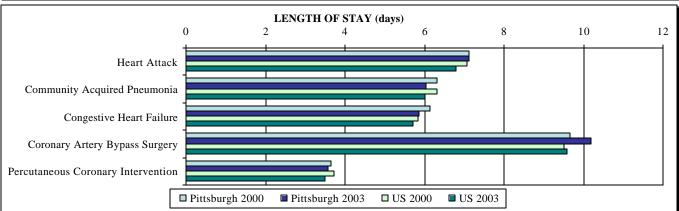


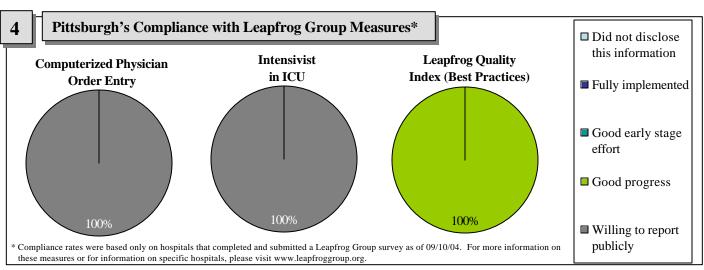
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EXPECTED RATIO		
	Pittsburgh	Pittsburgh	PERCENT	US Average	US Average	PERCENT
	2000	2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.14	0.96	15.84%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.99	0.89	9.56%	1.08	0.93	14.07%
Congestive Heart Failure	1.04	0.78	24.74%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	0.87	0.66	23.49%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.27	1.05	16.77%	1.14	0.92	19.06%

Hospital Charges and Length of Stay Compared to National Averages





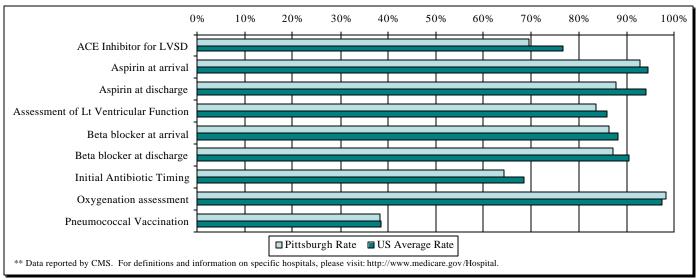


Definitions of Leapfrog Group Measures⁽¹⁾:

- 1. Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.
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 $^{^{(1)}\} http://www.leapfroggroup.org/FactSheets.htm$

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



Definitions of Performance Measures²⁾. These are process measures of quality (are the right things being done at the right time):

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- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.
- (2) http://www.cms.hhs.gov/quality/hospital/

Who Pays for Health Care in Pittsburgh?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Alcoa, Inc.

H.J. Heinz Company **United States Steel Corporation** PPG Industries, Inc.

⁺ Includes four largest employers

7

Hospitals in the Pittsburgh MSA:

Aliquippa Community Hospital A, Aliquippa

Alle Kiski Medical Center, Natrona Heights

Allegheny General Hospital, Pittsburgh

Brownsville General Hospital, Brownsville

Butler Memorial Hospital, Butler

Butler VA Medical Center, Butler

Canonsburg General Hospital, Canonsburg

Citizens General Hospital, New Kensington

Forbes Regional Hospital, Monroeville

Frick Hospital, Mount Pleasant

Highland Dr Division VA Pittsburgh Healthcare System, Pittsburgh

Highlands Hospital, Connellsville

Jefferson Regional Medical Center, Pittsburgh

Latrobe Area Hospital, Latrobe

Magee Womens Hospital of the Upmc Helth System, Pittsburgh

Medical Center Beave PA, Beaver

Mercy Hospital of Pittsburgh, Pittsburgh

Mercy Jeanette Hospital, Jeannette

Mercy Providence Hospital Inc, Pittsburgh

Monongahela Valley Hospital Inc, Monongahela

Monsour Medical Center, Jeannette

Ohio Valley General Hospital, Mckees Rocks

Roselia Foundling And Maternity Hospital, Pittsburgh

Sewickley Valley Hospital, Sewickley

South Hills Ear Nose and Throat Hospital, Pittsburgh

St Clair Memorial Hospital, Pittsburgh

St Francis Medical Center, Pittsburgh

State Correctional Institute Hospital, Pittsburgh

Suburban General Hospital, Pittsburgh

Uniontown Hospital, Uniontown

University Drive Division Va Pittsurgh Healthcare Syst, Pittsburgh

University of Pittsburgh Medical Center Braddock, Braddock

UPMC Mckeesport Hospital, Mc Keesport

UPMC Passavant, Pittsburgh

UPMC Presbyterian Shadyside, Pittsburgh

UPMC South Side, Pittsburgh

UPMC St Margaret, Pittsburgh

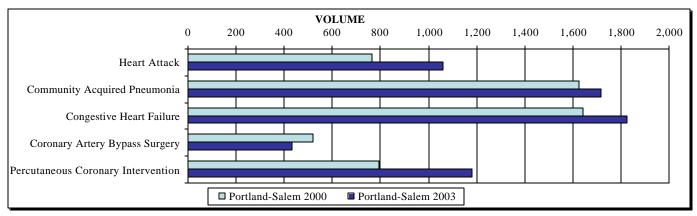
Washington Hospital, Washington

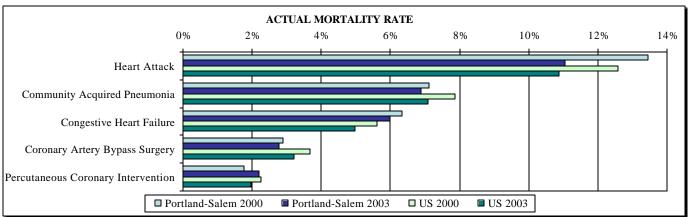
Western Pennsylvania Hospital, Pittsburgh

Westmoreland Regional Hospital, Greensburg

Portland-Salem, OR-WA

Volume by Year and Actual Mortality Rate Comparisons



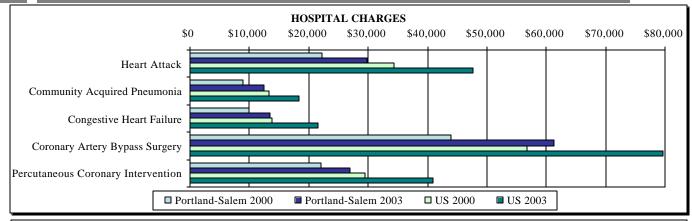


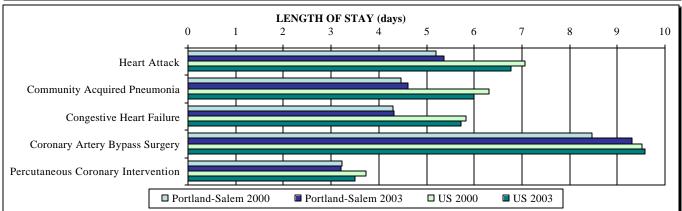
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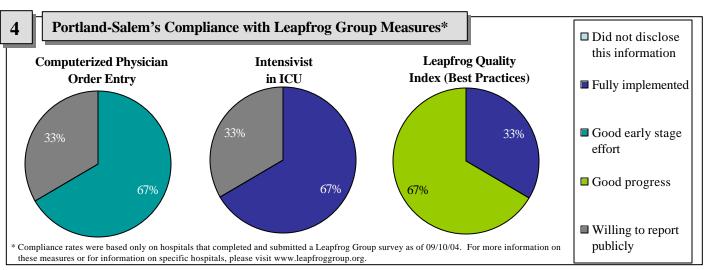
	OBSERVED/EXPECTED RATIO			OBSERVED/EXPECTED RATIO		
	Portland-	Portland-	PERCENT	US Average	US Average	PERCENT
	Salem 2000	Salem 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.26	0.94	25.13%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.07	0.99	7.26%	1.08	0.93	14.07%
Congestive Heart Failure	1.42	1.15	18.90%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.11	0.85	23.23%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.03	0.99	4.53%	1.14	0.92	19.06%

Portland-Salem, OR-WA

Hospital Charges and Length of Stay Compared to National Averages







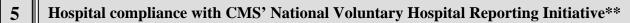
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Portland-Salem, OR-WA





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Who Pays for Health Care in Portland-Salem?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Hollywood Entertainment Corporation

Nike, Inc.

Precision Castparts Corporation

Louisiana-Pacific Corporation

⁺ Includes four largest employers



Hospitals in the Portland-Salem CMSA:

Adventist Medical Center, Portland, OR

Eastmoreland Hospital, Portland, OR

Kaiser Sunnyside Medical Center, Clackamas, OR

Legacy Emanuel Hospital And Health Center, Portland, OR

Legacy Good Samaritan Hospital And Medical Center, Portland, OR

Legacy Meridian Park Hospital, Tualatin, OR

Legacy Mount Hood Medical Center, Gresham, OR

Ohsu Hospital And Clinics And Doernbecher, Portland, OR

Providence Milwaukie Hospital, Milwaukie, OR

Providence Newberg Hospital, Newberg, OR

Providence Portland Medical Center, Portland, OR

Providence St Vincent Medical Center, Portland, OR

Salem Hospital, Salem, OR

Santiam Memorial Hospital, Stayton, OR

Silverton Hospital, Silverton, OR

Southwest Washington Medical Center, Vancouver, WA

Tuality Healthcare, Hillsboro, OR

Veteran's Administration Hospital, Vancouver, WA

Veteran's Administration Hospital, Portland, OR

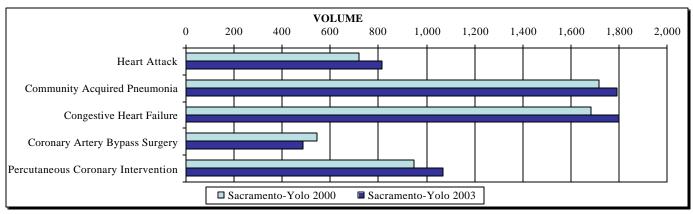
Valley Community Hospital, Dallas, OR Willamette Falls Hospital, Oregon City, OR

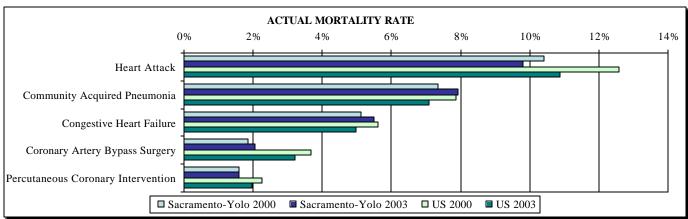
Willamette Valley Medical Center, Mcminnville, OR

Woodland Park Hospital, Portland, OR

Sacramento-Yolo, CA

Volume by Year and Actual Mortality Rate Comparisons



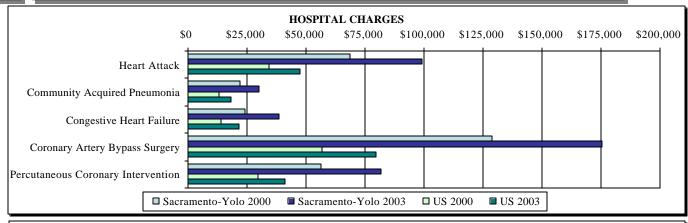


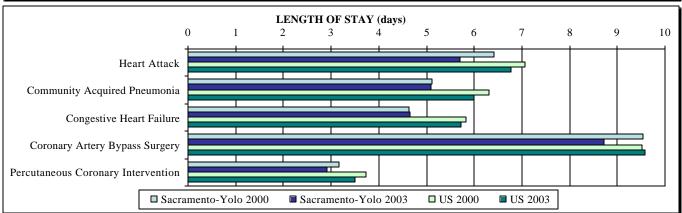
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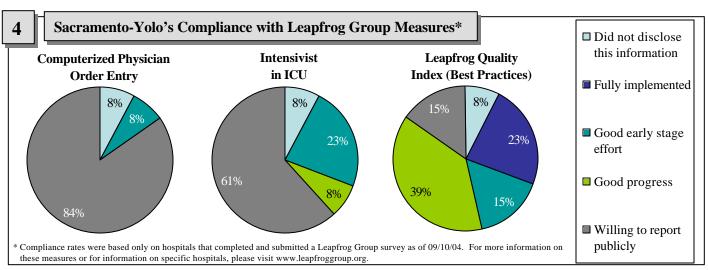
	OBSERVED/EXPECTED RATIO			OBSERVED/EXPECTED RATIO		
	Sacramento-	Sacramento-	PERCENT	US Average	US Average	PERCENT
	Yolo 2000	Yolo 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.00	0.97	3.47%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.02	1.01	1.72%	1.08	0.93	14.07%
Congestive Heart Failure	1.02	0.92	9.92%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	0.63	0.73	-14.75%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	0.82	0.86	-4.96%	1.14	0.92	19.06%

Sacramento-Yolo, CA

Hospital Charges and Length of Stay Compared to National Averages







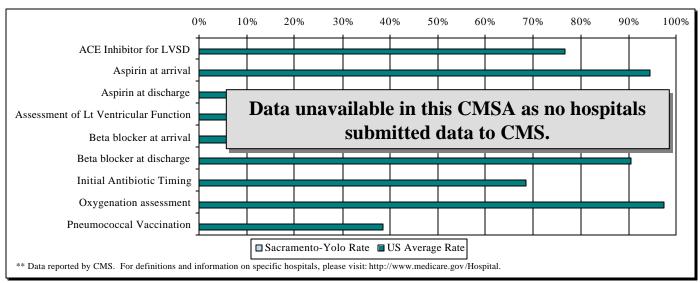
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Sacramento-Yolo, CA





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⁽²⁾ http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in Sacramento-Yolo?⁺

Government (Medicare, Medicaid, State, Local, School Districts) Gencorp Inc

+ Includes largest employer



Hospitals in the Sacramento-Yolo CMSA:

Barton Memorial Hospital, South Lake Tahoe Sutter Auburn Faith Hospital, Auburn Fairhaven Home And Hospital, Sacramento Sutter Davis Hospital, Davis

Kaiser Foundation Hospital, Sacramento Sutter Medical Center, Sacramento, Sacramento Kaiser Foundation Hospital So Sacramento, Sacramento Sutter Memorial Hospital, Sacramento

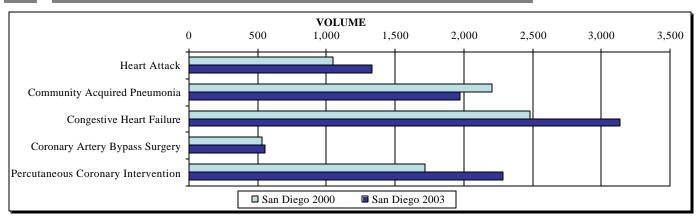
Marshall Hospital, Placerville Sutter Roseville Medical Center, Roseville Mercy General Hospital, Sacramento University of Calif Student Health Center, Davis

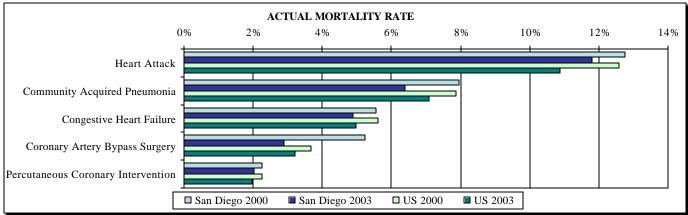
Mercy Hospital of Folsom, Folsom University of California Davis Medical Center, Sacramento

Mercy San Juan Medical Center, Carmichael US Air Force Hospital, Sacramento Methodist Hospital, Sacramento Woodland Memorial Hospital, Woodland

SAN DIEGO METROPOLITAN STATISTICAL AREA (MSA) HOSPITAL QUALITY FACT SHEET San Diego, CA

Volume by Year and Actual Mortality Rate Comparisons



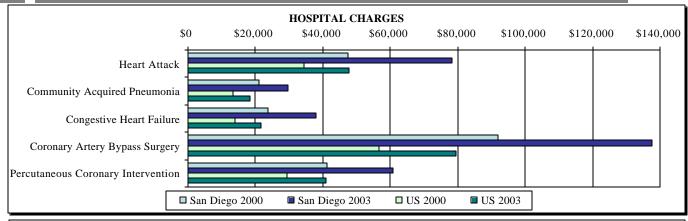


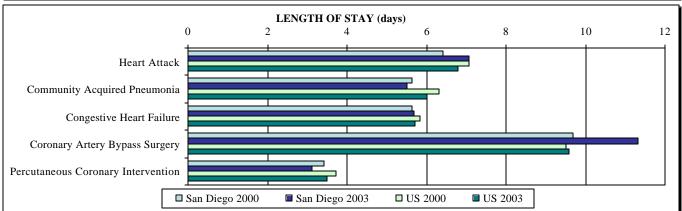
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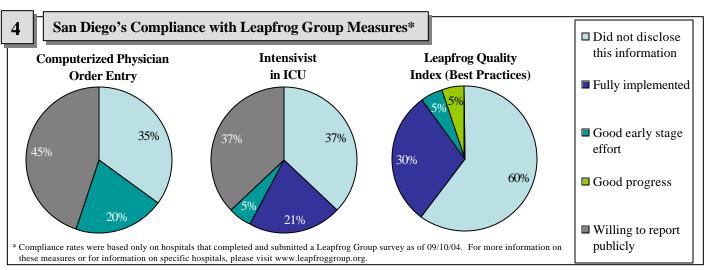
	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EXPECTED RATIO		
	San Diego	San Diego	PERCENT	US Average	US Average	PERCENT
	2000	2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.05	0.90	14.27%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.96	0.77	19.74%	1.08	0.93	14.07%
Congestive Heart Failure	1.01	0.82	19.06%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.57	0.65	58.29%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.24	1.00	19.35%	1.14	0.92	19.06%

SAN DIEGO METROPOLITAN STATISTICAL AREA (MSA) HOSPITAL QUALITY FACT SHEET San Diego, CA

Hospital Charges and Length of Stay Compared to National Averages







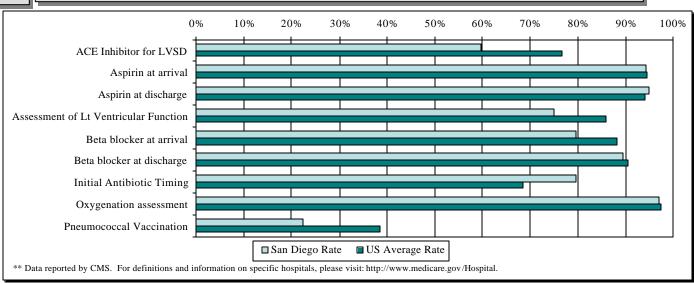
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SAN DIEGO METROPOLITAN STATISTICAL AREA (MSA) HOSPITAL QUALITY FACT SHEET San Diego, CA

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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Who Pays for Health Care in San Diego?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Jack in the Box Inc.

Science Applications International Corporation

Sempra Energy

Gateway, Inc.

⁺ Includes four largest employers



Hospitals in the San Diego MSA:

Alvarado Hospital Medical Center, San Diego

Fallbrook Hospital, Fallbrook Grossmont Hospital, La Mesa

Kaiser Foundation Hospital, San Diego Palomar Medical Center, Escondido

Paradise Valley Hospital, National City

Pomerado Hospital, Poway

San Diego Hospice Acute Care Center, San Diego

Scripps Green Hospital, La Jolla

Scripps Memorial Hospital Chula Vista, Chula Vista

Scripps Memorial Hospital Encinitas, Encinitas Scripps Memorial Hospital La Jolla, La Jolla

Scripps Mercy Hospital, San Diego

Sharp Chula Vista Medical Center, Chula Vista

Sharp Coronado Hospital And Hlthcr Center, Coronado

Sharp Mary Birch Hospital For Women, San Diego

Sharp Memorial Hospital, San Diego Tri City Medical Center, Oceanside

University Of California San Diego Medical Center, San Diego

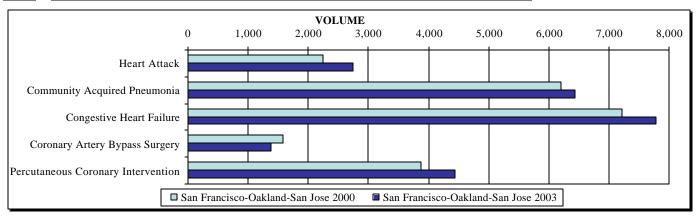
US Naval Hospital, San Diego

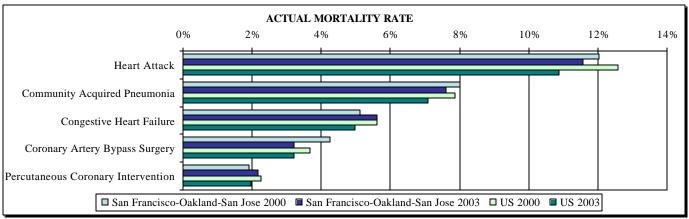
US Naval Hospital, Oceanside

Veterans Administration Hospital, San Diego Villa View Community Hospital, San Diego

San Francisco-Oakland-San Jose, CA

Volume by Year and Actual Mortality Rate Comparisons



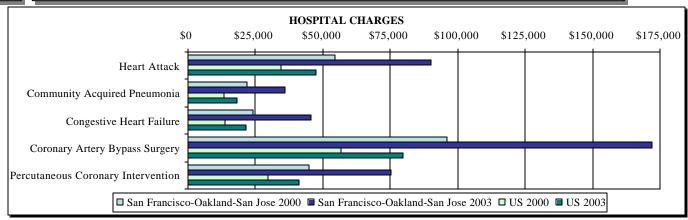


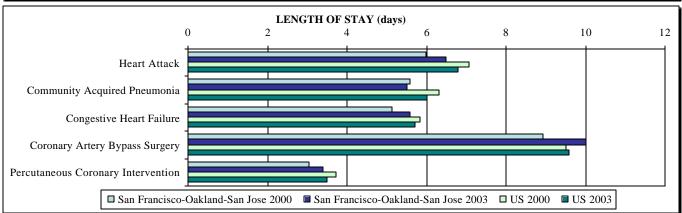
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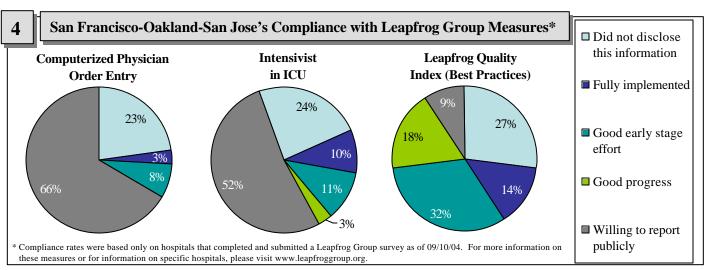
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	CMSA 2000	CMSA 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.05	0.91	13.21%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.06	0.93	12.04%	1.08	0.93	14.07%
Congestive Heart Failure	1.04	0.99	4.43%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.36	0.89	34.81%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.07	0.95	11.51%	1.14	0.92	19.06%

San Francisco-Oakland-San Jose, CA

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures(1):

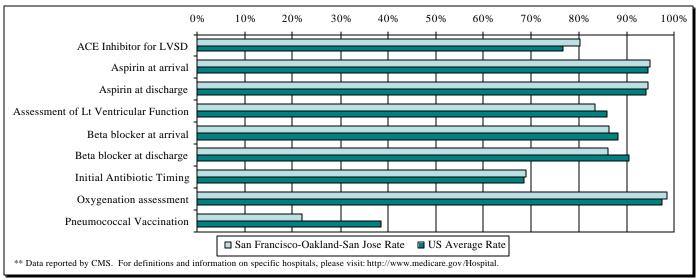
^{1.} Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur – at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for potential errors or problems.

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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

San Francisco-Oakland-San Jose, CA

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



Definitions of Performance Measures²². These are process measures of quality (are the right things being done at the right time):

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- (2) http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in the San Francisco CMSA?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Safeway Inc.

The Gap, Inc.

Hewlett-Packard Company

Wells Fargo & Co.

⁺ Includes four largest employers

San Francisco-Oakland-San Jose, CA



Hospitals in the San Francisco CMSA:

Agnews State Hospital, San Jose

Alameda County Medical Center, Oakland

Alameda Hospital, Alameda

Alta Bates Summit - Alta Bates Campus, Berkeley Alta Bates Summit Mc - Summit Campus, Oakland Ca Pacific Medical Center Pacific Campus, San Francisco

Chinese Hospital, San Francisco

Community Hospital Los Gatos, Los Gatos Contra Costa Regional Medical Center, Martinez

Davies Medical Center, San Francisco

Doctors Medical Center San Pablo Campus, San Pablo

Dominican Hospital, Santa Cruz Eden Medical Center, Castro Valley El Camino Hospital, Mountain View Ernest Cowell Memorial Hospital, Berkeley

Gilmore Hospital, San Leandro Good Samaritan Hospital, San Jose Healdsburg General Hospital, Healdsburg John Muir Medical Center, Walnut Creek Kaiser Foundation Hospital, Santa Clara Kaiser Foundation Hospital, Hayward Kaiser Foundation Hospital, Walnut Creek Kaiser Foundation Hospital, Redwood City Kaiser Foundation Hospital, San Francisco

Kaiser Foundation Hospital, San Rafael

Kaiser Foundation Hospital Oakland Campus, Oakland Kaiser Foundation Hospital Santa Rosa, Santa Rosa

Kaiser Foundation Hospital, South San Francisco

Kaiser Foundation Hospital Vallejo, Vallejo Laguna Honda Hospital, San Francisco Laurel Grove Hospital, Castro Valley Letterman General Hospital, San Francisco

Marin General Hospital, Greenbrae

Menlo Park Surgical Hospital, Menlo Park Mills Peninsula Health Services, Burlingame

Mt Diablo Medical Center, Concord Nelson Holderman Hospital, Yountville Northbay Medical Center, Fairfield Northbay Vacavalley Hopsital, Vacaville

Novato Community Hospital, Novato

O'connor Hospital, San Jose Palm Drive Hospital, Sebastopol Petaluma Valley Hospital, Petaluma

Queen Of The Valley, Napa

Regional Medical Center Of San Jose, San Jose Saint Louise Hospital And Health Center, Gilroy San Francisco General Hospital, San Francisco

San Jose Medical Center, San Jose San Leandro Hospital, San Leandro

San Mateo County General Hospital, San Mateo San Ramon Regional Medical Center, San Ramon Santa Clara Valley Medical Center, San Jose Santa Rosa Memorial Hospital, Santa Rosa Santa Teresa Community Hospital, San Jose

Sequoia Hospital, Redwood City Seton Medical Center, Daly City

Seton Medical Center Coastside, Moss Beach

Shriners Hospital For Crippled Children, San Francisco

Sonoma Development Center, Eldridge Sonoma Valley Health Care District, Sonoma St Francis Memorial Hospital, San Francisco

St Helena Hospital, Deer Park St Lukes Hospital, San Francisco

St Marys Hospital Medical Center, San Francisco

St Rose Hospital, Hayward Stanford Hospital, Stanford

Sutter Delta Medical Center, Antioch

Sutter Maternity And Surgery Center, Santa Cruz Sutter Medical Center Of Santa Rosa, Santa Rosa

Sutter Solano Medical Center, Vallejo Sutter Warrack Hospital, Santa Rosa UCSF Medical Center, San Francisco US Air Force Hospital, Fairfield US Naval Hospital, Oakland

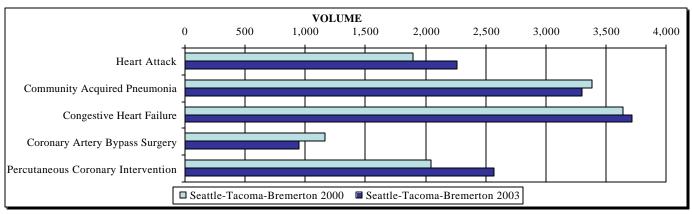
Veteran's Administration Hospital, Livermore Veteran's Administration Hospital, Martinez Veteran's Administration Hospital, Palo Alto

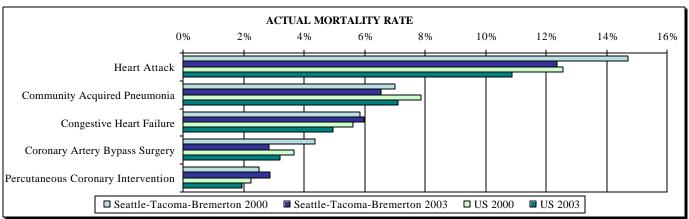
Valley Memorial Hospital, Livermore Washington Hospital, Fremont

Watsonville Community Hospital, Watsonville

Seattle-Tacoma-Bremerton, WA

Volume by Year and Actual Mortality Rate Comparisons



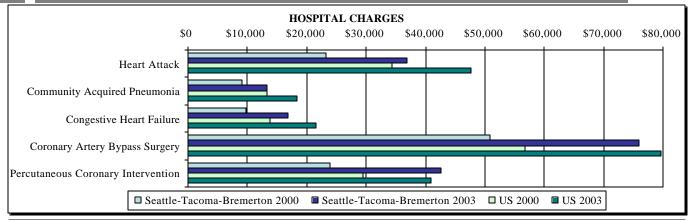


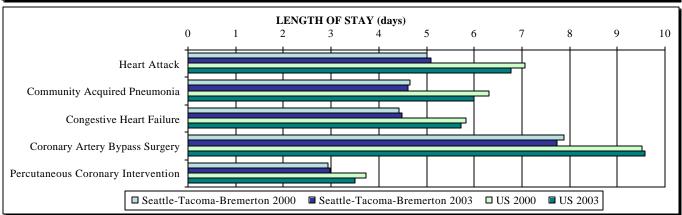
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

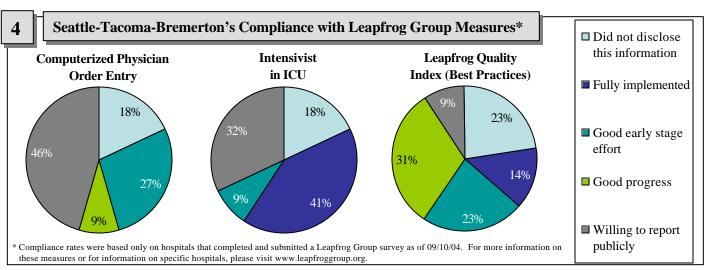
	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EXPECTED RATIO		
	Seattle-Tacoma-	Seattle-Tacoma-	PERCENT	US Average	US Average	PERCENT
	Bremerton 2000	Bremerton 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.19	0.90	24.40%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.02	0.81	20.71%	1.08	0.93	14.07%
Congestive Heart Failure	1.17	0.98	16.37%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.57	0.91	41.91%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.30	1.14	12.45%	1.14	0.92	19.06%

Seattle-Tacoma-Bremerton, WA

Hospital Charges and Length of Stay Compared to National Averages







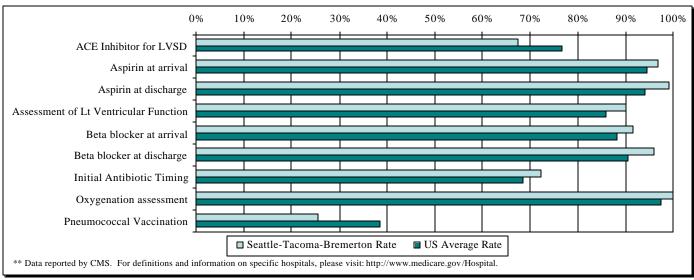
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Seattle-Tacoma-Bremerton, WA

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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⁽²⁾ http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in the Seattle CMSA?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Costco Wholesale Corporation

Starbucks Corporation

Weyerhaeuser Company

Washington Mutual, Inc.

⁺ Includes four largest employers

Seattle-Tacoma-Bremerton, WA



Hospitals in the Seattle CMSA:

Alcenas Hospital, Kirkland

Auburn Regional Medical Center, Auburn

Capital Medical Center, Olympia

Cascade Valley Hospital, Arlington

Enumclaw Community Hospital, Enumclaw

Evergreen Hospital Medical Center, Kirkland

Fircrest School Hospital, Seattle

Good Samaritan Hospital And Rehabilitation Center, Puyallup

Group Health Eastside Hospital, Redmond

Harborview Medical Center, Seattle

Harrison Memorial Hospital, Bremerton

Highline Community Hospital, Burien

Madigan General Hospital, Tacoma

Northwest Hospital, Seattle

Overlake Hospital Medical Center, Bellevue

Providence Everett Medical Center, Everett

Providence St Peter Hospital, Olympia

Ranier State School Hospital, Buckley

Saint Clare Hospital, Lakewood

Schick Shadel Hospital, Seattle

Seattle Cancer Care Alliance, Seattle

Shadel Hospital, Seattle

Snoqualmie Valley Hospital, Snoqualmie

St Francis Community Hospital, Federal Way

St Joseph Medical Center, Tacoma

St Peter Chemical Dependency Center, Lacey

Stevens Hospital, Edmonds

Swedish Medical Center, Seattle

Swedish Medical Center, Providence, Seattle

Tacoma General Allenmore Hospital, Tacoma

University Of Washington Medical Center, Seattle

US Army Hospital, Fort Lawton

US Department Of Justice Hospital, Steilacoom

US Naval Hospital, Oak Harbor

US Naval Hospital, Bremerton

US Public Health Service Hospital, Seattle

Veteran's Administration Hospital, Seattle

Veteran's Administration Hospital, American Lake

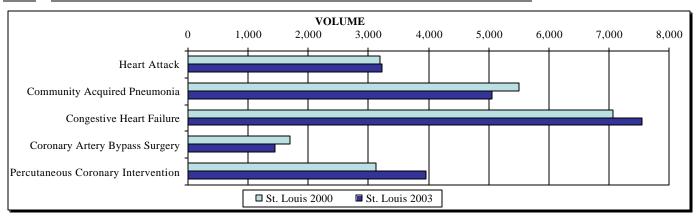
Valley General Hospital, Monroe

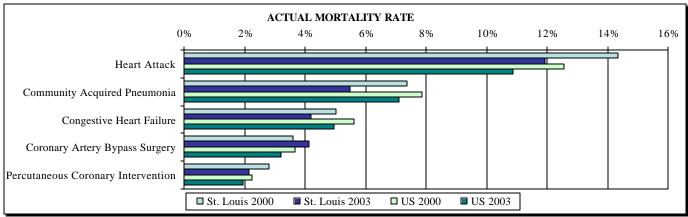
Valley Medical Center, Renton

Virginia Mason Medical Center, Seattle

Whidbey General Hospital, Coupeville

Volume by Year and Actual Mortality Rate Comparisons

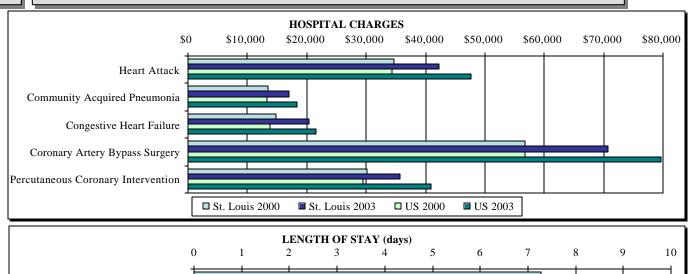


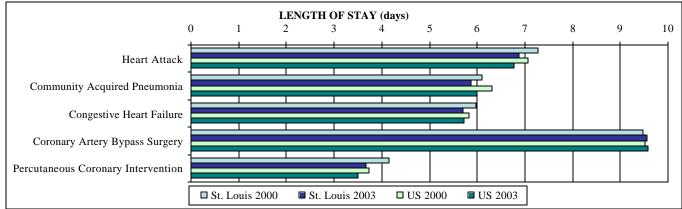


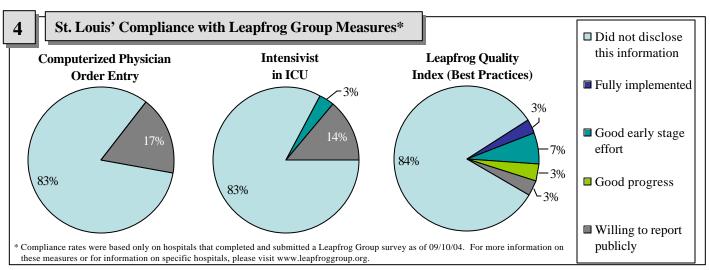
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EXPECTED RATIO		
	St. Louis	St. Louis	PERCENT	US Average	US Average	PERCENT
	2000	2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.17	0.93	20.20%	1.12	0.93	16.77%
Community Acquired Pneumonia	1.07	0.75	30.32%	1.08	0.93	14.07%
Congestive Heart Failure	1.04	0.76	27.14%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.09	1.04	4.52%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.33	0.85	35.68%	1.14	0.92	19.06%

Hospital Charges and Length of Stay Compared to National Averages







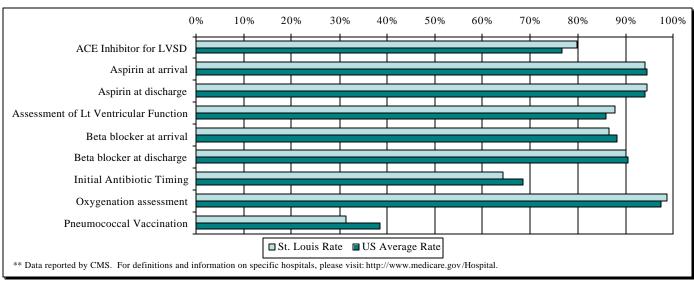
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5 Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



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Who Pays for Health Care in St. Louis?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

The May Department Stores Company

Emerson Electric Co.

Kellwood Company

Furniture Brands International, Inc.

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

7

Hospitals in the St. Louis MSA:

Alton Memorial Hospital, Alton, IL

Anderson Hospital, Maryville, IL

Barnes Jewish Hospital, Saint Louis, MO

Barnes Jewish St Peters Hospital, Saint Peters, MO

Barnes Jewish West County Hospital, Saint Louis, MO

Christian Hospital Northeast, Saint Louis, MO

Christian Hospital Northwest, Florissant, MO

Crossroads Regional Hospital, Wentzville, MO

Des Peres Hospital, Saint Louis, MO

Forest Park Hospital, Saint Louis, MO

Gateway Regional Medical Center, Granite City, IL

Jefferson Memorial Hospital, Crystal City, MO

Jersey Community Hospital District, Jerseyville, IL

Lincoln County Medical Center, Troy, MO

Madison County Tuberculosis Sanatorium, Edwardsville, IL

Memorial Hospital, Belleville, IL

Missouri Baptist Hospital Sullivan, Sullivan, MO

Missouri Baptist Medical Center, Saint Louis, MO

S S M Depaul Health Center, Bridgeton, MO

Saint Anthony Health Center, Alton, IL

Shriners Hospital For Crippled Children, Saint Louis, MO

Ssm St Joseph Hospital Of Kirkwood, Kirkwood, MO

St Alexious Hospital, Saint Louis, MO

St Anthonys Medical Center, Saint Louis, MO

St Elizabeth Hospital, Belleville, IL

St Johns Mercy Hospital, Washington, MO

St Johns Mercy Medical Center, Saint Louis, MO

St Joseph Health Center, Saint Charles, MO

St Joseph Hospital West, Lake Saint Louis, MO

St Josephs Hospital, Breese, IL

St Josephs Hospital, Highland, IL

St Louis University Hospital, Saint Louis, MO

St Luke's Episcopal-Presbyterian Hospital, Chesterfield, MO

St Marys Health Center, Richmond Heights, MO

St Marys Hospital Of East St Louis, East Saint Louis, IL

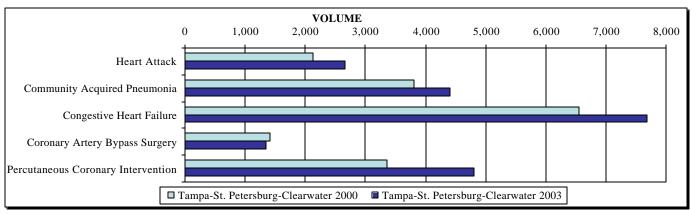
Touchette Regional Hospital Inc, Centreville, IL

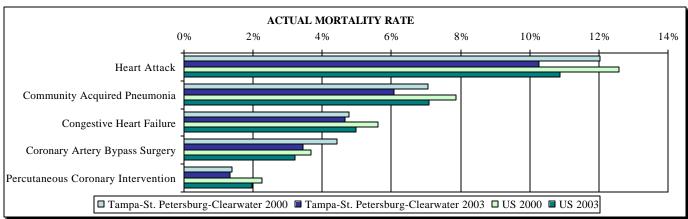
US Air Force Hospital, Belleville, IL

Veteran's Administration Hospital, Saint Louis, MO

Tampa-St. Petersburg-Clearwater, FL

Volume by Year and Actual Mortality Rate Comparisons



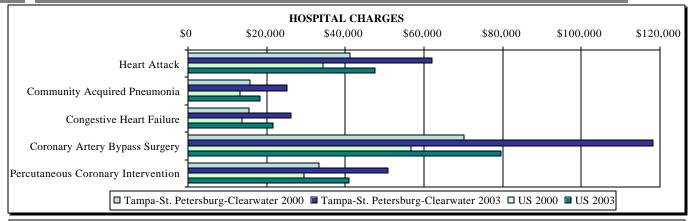


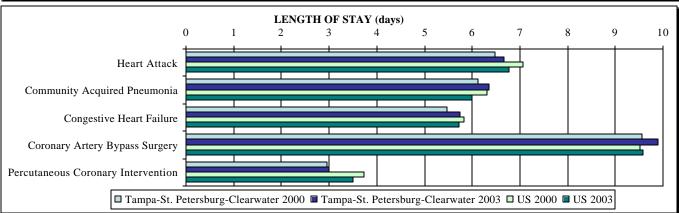
Comparison of observed mortality divided by expected mortality between 2000 and 2003. An O/E ratio of less than 1 means that the MSA had fewer deaths than expected given its patient population. An O/E of greater than 1 means that the MSA had more deaths than expected given its patient population.

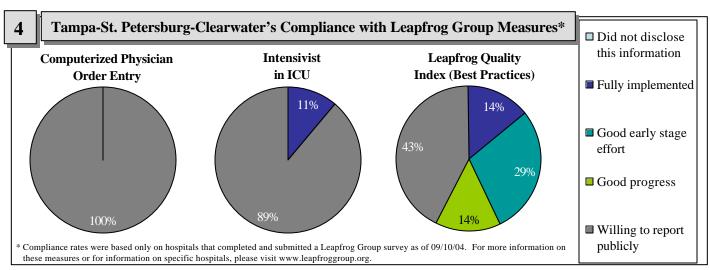
	OBSERVED/EXPECTED RATIO			OBSERVED/EXPECTED RATIO		
	Tampa	Tampa	PERCENT	US Average	US Average	PERCENT
	MSA 2000	MSA 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	0.96	0.83	13.81%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.83	0.72	13.30%	1.08	0.93	14.07%
Congestive Heart Failure	0.79	0.72	7.95%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.01	0.75	26.13%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	0.77	0.72	7.25%	1.14	0.92	19.06%

Tampa-St. Petersburg-Clearwater, FL

Hospital Charges and Length of Stay Compared to National Averages







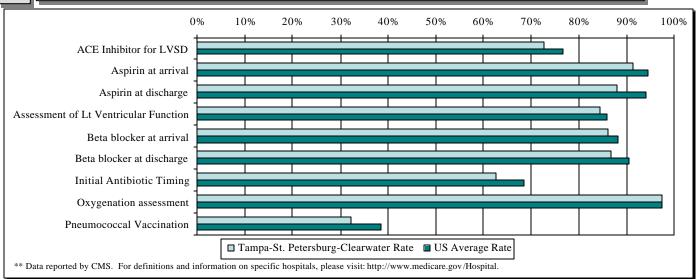
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⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Tampa-St. Petersburg-Clearwater, FL





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⁽²⁾ http://www.cms.hhs.gov/quality/hospital/



Who Pays for Health Care in the Tampa MSA?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Outback Steakhouse, Inc

Jabil Circuit, Inc.

Tech Data Corporation

Walter Industries, Inc.

⁺ Includes four largest employers



Hospitals in the Tampa MSA:

Bay Pines VA Medical Center, Saint Petersburg Bayfront Medical Center Inc, Saint Petersburg

Brandon Regional Hospital, Brandon

Brooksville Regional Hospital, Brooksville

Community Hospital Of New Port Richey, New Port Richey

Dade City Hospital, Dade City

East Pasco Medical Center, Zephyrhills Edward White Hospital, Saint Petersburg

H Lee Moffitt Can Center And Research Institute Inc, Tampa

Helen Ellis Memorial Hospital, Tarpon Springs

Largo Medical Center, Largo

Mease Hospital Countryside, Safety Harbor

Mease Hospital Dunedin, Dunedin Memorial Hospital Of Tampa, Tampa Morton Plant Hospital, Clearwater

Morton Plant North Bay Hospital, New Port Richey

Northside Hospital, Saint Petersburg

Oak Hill Hospital, Spring Hill

Palms Of Pasadena Hospital, Saint Petersburg

Regional Medical Center Bayonet Point, Hudson

South Bay Hospital, Sun City Center

South Florida Baptist Hospital, Plant City

Spring Hill Regional Hospital, Spring Hill

St Anthonys Hospital, Saint Petersburg

St Josephs Hospital, Tampa

St Petersburg General Hospital, Saint Petersburg

Sun Coast Hospital, Largo

Tampa General Hospital, Tampa Town And Country Hospital, Tampa

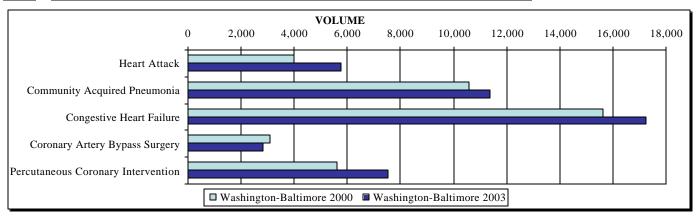
University Community Hospital, Tampa

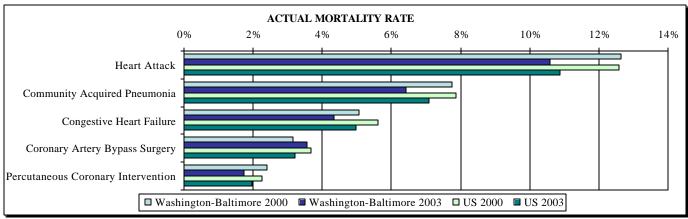
University Community Hospital At Carrollwood, Tampa

US Air Force Hospital, Tampa

Washington-Baltimore, DC-MD-VA-WV

Volume by Year and Actual Mortality Rate Comparisons



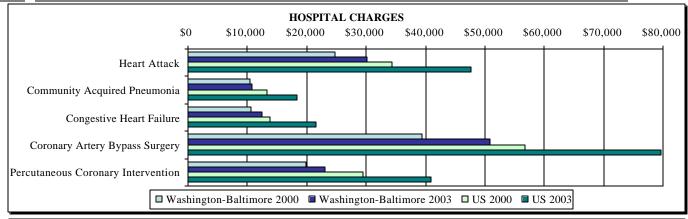


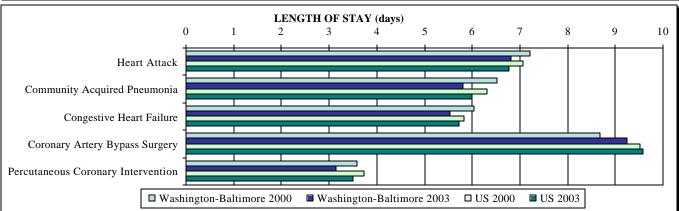
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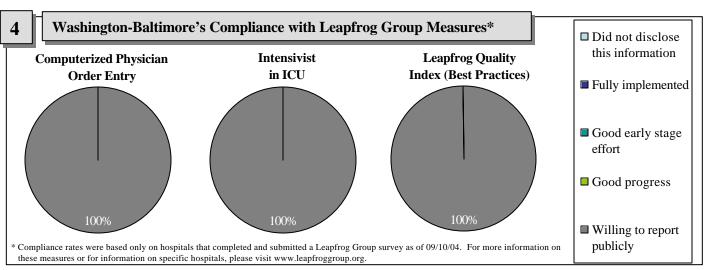
	OBSERVED/EX	OBSERVED/EXPECTED RATIO		OBSERVED/EXPECTED RATIO		
	Washington-	Washington-	PERCENT	US Average	US Average	PERCENT
	Baltimore 2000	Baltimore 2003	IMPROVEMENT	2000	2003	IMPROVEMENT
Heart Attack	1.09	0.87	20.01%	1.12	0.93	16.77%
Community Acquired Pneumonia	0.96	0.79	18.00%	1.08	0.93	14.07%
Congestive Heart Failure	0.98	0.75	23.73%	1.14	0.91	20.21%
Coronary Artery Bypass Surgery	1.04	1.04	0.85%	1.15	0.91	20.68%
Percutaneous Coronary Intervention	1.24	0.87	29.37%	1.14	0.92	19.06%

Washington-Baltimore, DC-MD-VA-WV

Hospital Charges and Length of Stay Compared to National Averages







Definitions of Leapfrog Group Measures⁽¹⁾:

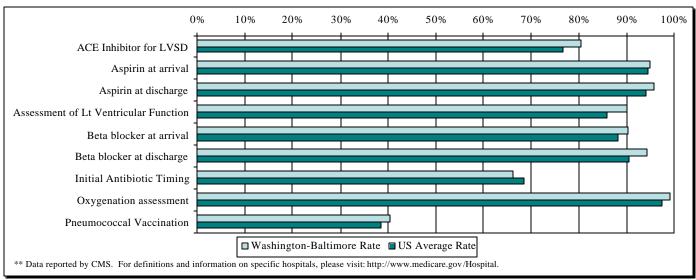
^{1.} Computerized Physician Order Entry (CPOE): Electronic prescribing systems that intercept errors when they most commonly occur – at the time medications are ordered. With CPOE, physicians enter orders into a computer rather than on paper. Orders are integrated with patient information, including laboratory and prescription data. The order is then automatically checked for patential errors or problems.

^{2.} Intensivist in ICU: Board-certified physicians who are additionally certified in the subspecialty of critical care medicine, or physicians board-certified in emergency medicine who have completed a critical care fellowship in an ACGME-accredited program, or physicians board-certified in Medicine, Anesthesiology, Pediatrics or Surgery who completed training prior to the availability of subspecialty certification in critical care and who have provided at least six weeks of full-time ICU care annually since 1987.

⁽¹⁾ http://www.leapfroggroup.org/FactSheets.htm

Washington-Baltimore, DC-MD-VA-WV

Hospital compliance with CMS' National Voluntary Hospital Reporting Initiative**



Definitions of Performance Measures²⁾. These are process measures of quality (are the right things being done at the right time):

- 1. ACE Inhibitor for LVSD: Acute Myocardial Infarction (AMI) and Heart Failure patients with left ventricular systolic dysfunction (LVSD) and without angiotension converting enzyme inhibitor (ACEI) contraindications who are prescribed an ACEI at hospital discharge.
- 2. Aspirin at arrival: Acute Myocardial Infarction (AMI) patients without aspirin contraindications who received aspirin within 24 hours before or after hospital arrival.
- 3. Aspirin at discharge: Acute Myocardial Infarction (AMI) patients without aspirin contraindications who are prescribed aspirin at hospital discharge.
- 4. Assessment of Left Ventricular Function: Heart Failure patients with documentation in the hospital record that left ventricular function (LVF) was assessed before arrival, during hospitalization, or is planned for after discharge.
- Padmet for fact in Statistics.

 S. Beta blocker at arrival: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who received a beta blocker within 24 hours after hospital arrival.
- 6. Beta blocker at discharge: Acute Myocardial Infarction (AMI) patients without beta blocker contraindications who are prescribed a beta blocker at hospital discharge.
- 7. Initial Antibiotic Timing: Pneumonia patients who receive their first dose of antibiotics within 4 hours after arrival at the hospital.
- 8. Oxygenation assessment: Pneumonia patients who had an assessment of arterial oxygenation by arterial blood gas measurement or pulse oximetry within 24 hours prior to or after arrival at the hospital.
- 9. Pneumococcal Vaccination: Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.



Who Pays for Health Care in Washington-Baltimore?⁺

Government (Medicare, Medicaid, State, Local, School Districts)

Marriott International, Inc.

Lockheed Martin Corporation

General Dynamics Corporation

Gannett Co., Inc.

⁺ Includes four largest employers

⁽²⁾ http://www.cms.hhs.gov/quality/hospital/

Washington-Baltimore, DC-MD-VA-WV



Hospitals in the Washington-Baltimore CMSA:

Anne Arundel Medical Center, Annapolis, MD

Baltimore VA Rehabilitation And Extended Care Center, Baltimore, MD

Bon Secours Hospital, Baltimore, MD

Calvert Memorial Hospital, Prince Frederick, MD Carroll County General Hospital, Westminster, MD

Childrens Center Hospital, Laurel, MD Church Hospital Corporation, Baltimore, MD

City Hospital, Martinsburg, WV Civista Medical Center, La Plata, MD

Culpeper Memorial Hospital Inc, Culpeper, VA Dewitt Army Hospital, Fort Belvoir, VA Doctor's Community Hospital, Lanham, MD

Fauquier Hospital, Warrenton, VA

Fort Howard VA Outpatient Clinic, Fort Howard, MD

Franklin Square Hospital, Baltimore, MD Frederick Memorial Hospital, Frederick, MD

Ft Washington Medical Center, Fort Washington, MD George Washington University Hospital, Washington, DC

Georgetown University Hospital, Washington, DC

Good Samaritan Hospital, Baltimore, MD

Greater Baltimore Medical Center, Baltimore, MD Greater Southeast Community Hospital, Washington, DC

Harbor Hospital Center, Baltimore, MD

Harford Memorial Hospital, Havre De Grace, MD

Holy Cross Hospital, Silver Spring, MD Hospice Of Northern Virginia, Arlington, VA Howard County General Hospital, Columbia, MD Howard University Hospital, Washington, DC Inova Alexandria Hospital, Alexandria, VA Inova Fair Oaks Hospital, Fairfax, VA Inova Fairfax Hospital, Falls Church, VA

James Lawrence Kernan Hospital Inc, Baltimore, MD

Jefferson Memorial Hospital, Ranson, WV

Johns Hopkins Bayview Medical Center, Baltimore, MD

Johns Hopkins Hospital, Baltimore, MD

Kimbrough Army Hospital, Fort George E Meade, MD

Laurel Regional Hospital, Laurel, MD

Loudoun Hospital Center Lansdowne, Leesburg, VA Martinsburg VA Medical Center, Martinsburg, WV Mary Washington Hospital, Fredericksburg, VA Maryland General Hospital, Baltimore, MD Maryland Penitentiary Hospital, Baltimore, MD Mercy Medical Center Inc, Baltimore, MD Montgomery General Hospital Inc, Olney, MD

Mt Vernon Hospital, Alexandria, VA North Arundel Hospital, Glen Burnie, MD

Northern Virginia Community Hospital, Arlington, VA

Northwest Hospital Center, Randallstown, MD

Potomac Hospital, Woodbridge, VA

Prince Georges Hospital Center, Cheverly, MD Prince William Hospital, Manassas, VA Providence Hospital, Washington, DC Reston Hospital Center, Reston, VA

Shady Grove Adventist Hospital, Rockville, MD Sibley Memorial Hospital, Washington, DC

Sinai Hospital, Baltimore, MD

Southern Maryland Hospital, Clinton, MD St Agnes Hospital, Baltimore, MD St Joseph Hospital, Towson, MD

Suburban Hospital Association, Bethesda, MD Union Memorial Hospital, Baltimore, MD

University Of Maryland Medical Systm, Baltimore, MD

Upper Chesapeake Medical Center, Bel Air, MD

US Army Hospital, Aberdeen, MD US Naval Hospital, Quantico, VA US Naval Hospital, Annapolis, MD

Virginia Hospital Center- Arlington, Arlington, VA Walter Reed Army Hospital, Washington, DC Warren Memorial Hospital, Front Royal, VA Washington Adventist Hospital, Takoma Park, MD Washington County Hospital, Hagerstown, MD Washington DC VA Medical Center, Washington, DC Washington Hospital Center, Washington, DC