

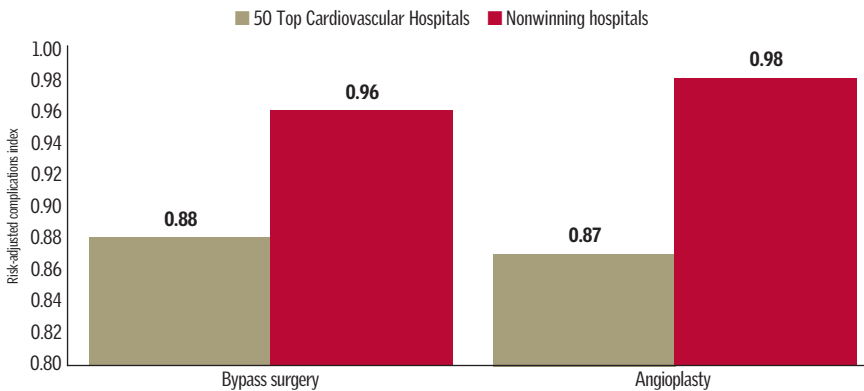
FACTFILE

Cardiac Hospital Performance

The *Truven Health Analytics 50 Top Cardiovascular Hospitals* study identifies U.S. hospitals that have achieved the best performance on a balanced scorecard of performance measures. Based on comparisons between study winners and a peer group of similar hospitals that were not winners, winners are achieving better outcomes while operating more efficiently and at a lower cost. If all cardiovascular providers performed at the same level of this year's winners, almost 8,000 additional lives could be saved; nearly 3,500 heart patients could be complication free; and more than \$1.3 billion could be saved. **ii**

FEWER COMPLICATIONS

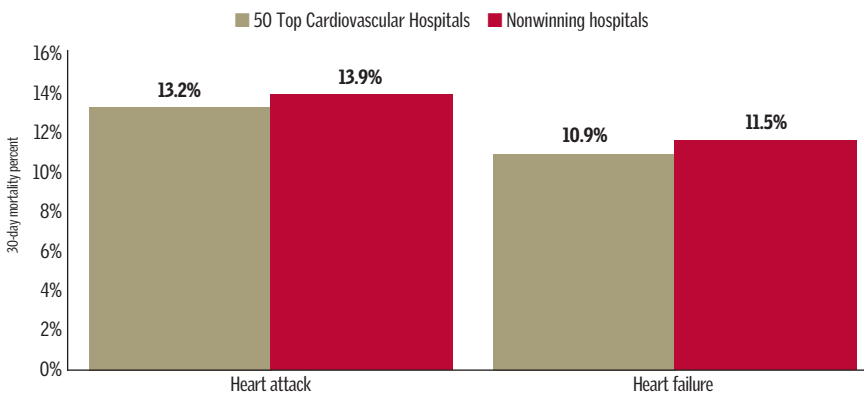
The median complications index is the ratio of observed complications to what was expected, given patient illness severity. Top cardiovascular hospitals were 0.08 and 0.11 percentage points lower for bypass surgeries and angioplasties than peer hospitals.



SOURCE: The Truven Health Analytics.

LOWER 30-DAY MORTALITY RATES

Top cardiovascular hospitals were nearly one percentage point lower than peers for heart attack patients and more than a half of a percentage point lower for heart failure patients.



SOURCE: The Truven Health Analytics.

U.S. Population With Cardiovascular Disease

While 2.2% of the U.S. adult population has cardiovascular disease, there is considerable variation based on state of residence. For example, 4.3% of West Virginia residents have cardiovascular disease, the highest percentage in the nation, compared with just 1.4% of those who live in Hawaii, Utah, and Washington, DC.

Location	Has Cardiovascular Disease
1. West Virginia	4.3%
2. Kentucky	3.4%
3. Tennessee	3.3%
4. Maine	3.0%
5. Florida	2.9%
6. Oklahoma	2.9%
7. Alabama	2.9%
8. Michigan	2.8%
9. Ohio	2.8%
10. South Dakota	2.7%
11. Mississippi	2.7%
11. Wisconsin	2.7%
13. Louisiana	2.6%
13. Missouri	2.6%
13. Pennsylvania	2.6%
16. Iowa	2.6%
17. South Carolina	2.5%
18. Indiana	2.5%
19. Rhode Island	2.5%
20. Arkansas	2.5%
21. Puerto Rico	2.4%
22. New Hampshire	2.4%
23. North Carolina	2.3%
24. New York	2.3%
24. North Dakota	2.3%
26. Kansas	2.2%
United States	2.2%
27. Nebraska	2.2%
28. Oregon	2.2%
28. Wyoming	2.2%
30. Delaware	2.1%
31. Montana	2.1%
31. Vermont	2.1%
33. Illinois	2.0%
34. Georgia	2.0%
34. Texas	2.0%
36. Connecticut	1.9%
37. Idaho	1.9%
38. New Mexico	1.9%
39. Virginia	1.8%
39. Washington	1.8%
41. Massachusetts	1.8%
42. Arizona	1.8%
43. Alaska	1.7%
44. Maryland	1.6%
45. Nevada	1.6%
46. Colorado	1.6%
47. California	1.5%
48. New Jersey	1.5%
49. Minnesota	1.5%
50. Hawaii	1.4%
51. District of Columbia	1.4%
52. Utah	1.4%
53. Guam	NSD

NOTES: U.S. total includes territories. Data represent adults who report ever having or having been told by a doctor that they had a heart attack (myocardial infarction), angina, or coronary heart disease. Percentages are weighted to reflect population characteristics. Data is based on the Behavioral Risk Factor Surveillance System, an ongoing, state-based, random-digit-dialed telephone survey of noninstitutionalized civilian adults aged 18 years and older. Information about the BRFSS is available at <http://www.cdc.gov/brfss/index.html>. NSD indicates there is not sufficient data.

SOURCES: Kaiser State Health Facts, Percent of Adults with Cardiovascular Disease, 2013; <http://kff.org/other/state-indicator/percent-of-adults-with-cardiovascular-disease/>; Kaiser Commission on Medicaid and the Uninsured analysis of the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System 2013 Survey Results.

FACT FILE PARTNER:

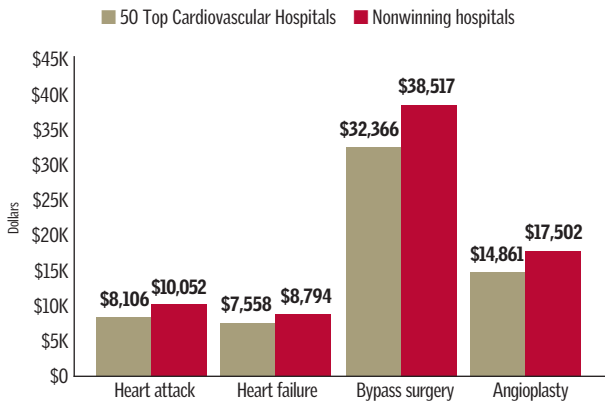


ABOUT THE DATA: The *Truven Health 50 Top Cardiovascular Hospitals* study is based on quantitative research that uses a balanced scorecard approach, based on publicly available data, to identify the top cardiovascular hospitals in the United States. This study focuses on short-term, acute care, nonfederal U.S. hospitals that treat a broad spectrum of cardiology patients. It includes patients requiring medical management, as well as those who receive invasive or surgical procedures. Because multiple measures are used, a hospital must provide all forms of cardiovascular care, including open-heart surgery, to be included in the study. Only objective, public data sources are used for calculating study metrics. This eliminates bias, ensures inclusion of as many health systems as possible, and facilitates uniformity of definitions and data.

For more information, email providersolutions@truvenhealth.com, call 1-800-525-9083, option 4, or visit www.truvenhealth.com.

LOWER COST PER CASE

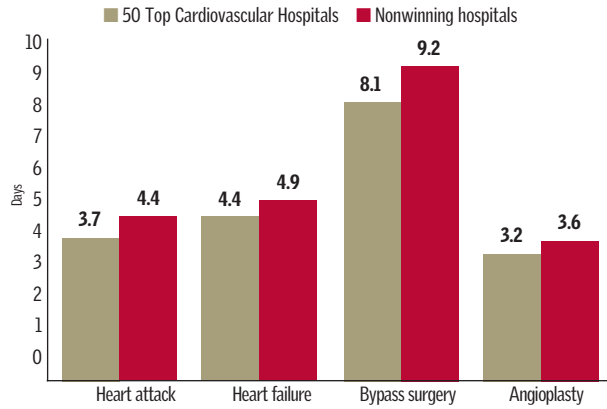
The winning hospitals achieved superior clinical performance while keeping costs lower. Compared to nonwinning hospitals, the typical winning hospital spent \$6,151 less per bypass surgery patient (16%) and \$1,946 less per heart attack patient (19%).



SOURCE: The Truven Health Analytics.

SHORTER LENGTH OF STAY

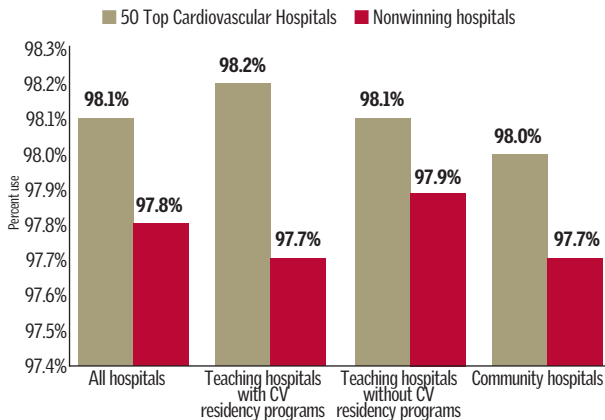
Winning hospitals released their bypass surgery patients more than a day sooner than their peers, and their heart attack, heart failure, and angioplasty patients were released roughly one-half day sooner. Study winners had average lengths of stay that were 10%–16% shorter than nonwinners.



SOURCE: The Truven Health Analytics.

BETTER CARE PROTOCOL

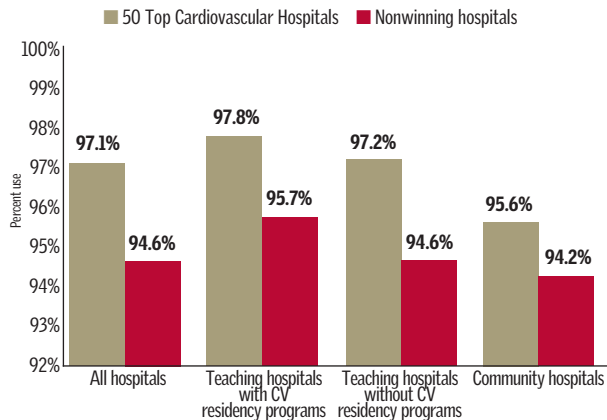
A median core measures score of 98.1% for all winning hospitals means they are following recommended treatment protocols for all but 1.9% of all heart patients. Core measure use is consistent across the hospital types studied, ranging from 0.2–0.5 percentage points higher.



SOURCE: The Truven Health Analytics.

BETTER USE OF INTERNAL MAMMARY ARTERY

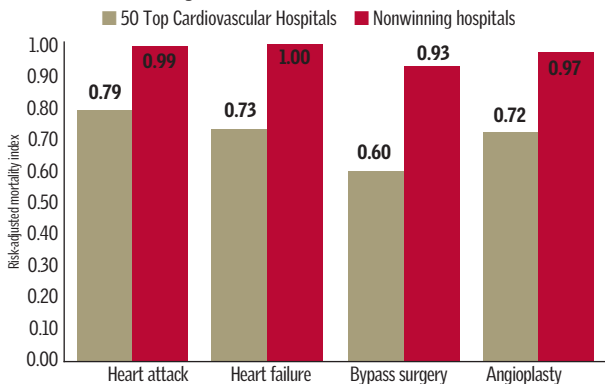
Winning hospitals were more likely than nonwinning hospitals to use internal mammary artery graft in bypass surgery in all the hospital groups studied, with the greatest difference of 2.6 points in teaching hospitals without CV residency programs.



SOURCE: The Truven Health Analytics.

LOWER MORTALITY

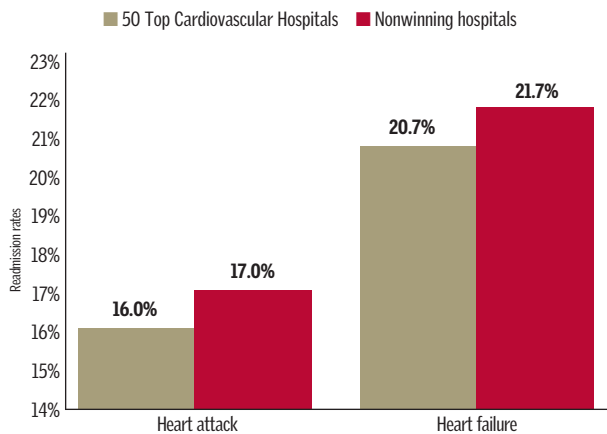
Survival rates are better at Top Cardiovascular Hospitals, especially for patients receiving bypass surgeries, where the median risk-adjusted mortality index was 0.60, meaning 40% fewer deaths than would be expected, given patient illness severity. Study winners had significantly better inpatient survival than nonwinning cardiovascular hospitals, as much as 20%–33% higher.



SOURCE: The Truven Health Analytics.

BETTER 30-DAY READMISSION RATES

The 50 Top Cardiovascular Hospitals had lower 30-day readmission rates for heart attacks and heart failure. Winning hospitals performed a full percentage point better than nonwinners.



SOURCE: The Truven Health Analytics.

