

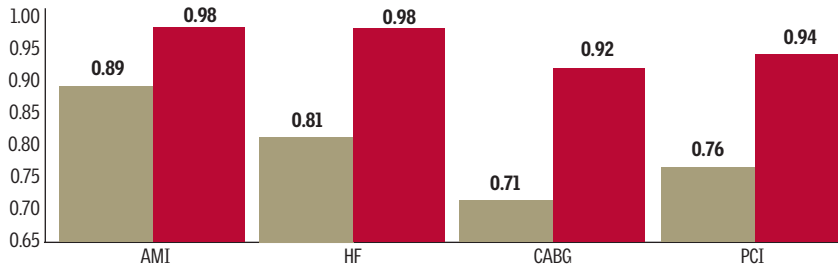
# FACTFILE

## Cardiovascular Performance

Patients who seek treatment at one of the Thomson Reuters 50 Top Cardiovascular Hospitals have better outcomes: They are released from the hospital sooner and have lower 30-day mortality. And these hospitals manage clinical gains while keeping costs lower. The typical winning hospital spent approximately \$4,000 less per bypass surgery patient and nearly \$1,500 less per heart attack patient admitted.

### RISK-ADJUSTED MORTALITY INDEX, ALL HOSPITALS

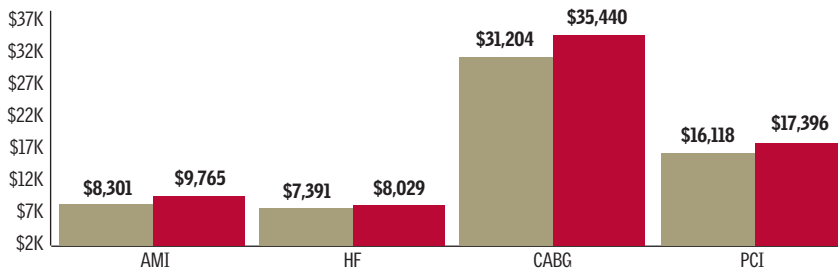
Survival rates are markedly better at 50 Top Cardiovascular Hospitals award winners, particularly for patients receiving coronary artery bypass graft surgery and percutaneous coronary intervention. The median benchmark hospital had a risk-adjusted CABG mortality index of 0.71, meaning it experienced 29% fewer deaths than would be expected, given patient severity. Nonwinning hospitals, on the other hand, posted a 0.92 index, meaning they had only 8% percent fewer CABG mortalities than expected. Performance at top hospitals was superior for acute myocardial infarction and heart failure patients, too.



SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012. Legend: Winners (olive), Nonwinners (red)

### WAGE- AND SEVERITY-ADJUSTED AVERAGE COST PER CASE, ALL HOSPITALS

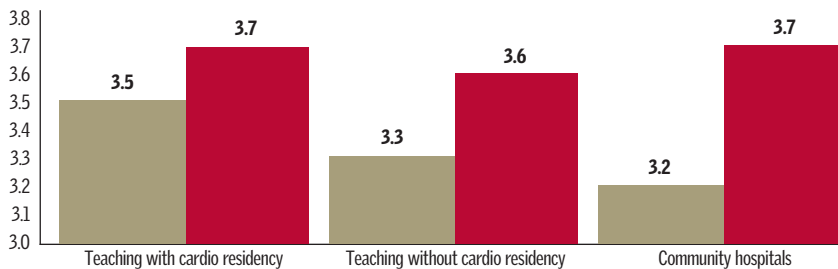
The 50 Top Cardiovascular Hospitals award winners also maintain costs per case that are about \$1,900 lower than their nonwinning peers. The most dramatic difference is in the CABG patient group, where the winners spent about \$4,200, or 12%, less per case than their peers.



SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012. Legend: Winners (olive), Nonwinners (red)

### PCI PATIENT LENGTH OF STAY, BY HOSPITAL GROUP

Award-winning hospitals released PCI patients about a half a day sooner than their nonwinning peers.



SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012. Legend: Winners (olive), Nonwinners (red)

### ABOUT THIS DATA

The Thomson Reuters 50 Top Cardiovascular Hospitals Study, in its 13th year, identifies 50 hospitals that achieved superior outcomes. Researchers analyzed 2009 and 2010 Medicare Provider Analysis and Review data, Medicare cost reports, and Centers for Medicare & Medicaid Services Hospital Compare data.

### Heart Disease Deaths

There is considerable variation from state to state for the number of deaths attributed to diseases of the heart. This 2007 data shows Minnesota with the lowest rate, with about 130 deaths per 100,000 compared to Mississippi, with about 267.

Rank (1=low   51=high)	Heart Disease Death Rate per 100,000
<b>United States</b>	<b>190.9</b>
1. Minnesota	129.8
2. Hawaii	140.2
3. Colorado	145.3
4. Alaska	147.9
5. Utah	152.1
6. Arizona	152.5
7. Oregon	156.9
8. South Dakota	159.1
9. New Mexico	159.2
10. Vermont	161.2
11. Florida	162.4
12. Montana	163.1
13. Idaho	164.1
13. North Dakota	164.1
15. Nebraska	165.3
16. Massachusetts	165.5
17. Washington	167.3
18. Connecticut	171.0
19. Wisconsin	171.9
20. Maine	172.9
21. Iowa	174.8
22. New Hampshire	174.9
23. California	177.9
24. Wyoming	178.3
25. Kansas	178.7
26. Virginia	182.7
27. North Carolina	191.0
28. New Jersey	191.9
28. Texas	191.9
30. Illinois	192.8
31. South Carolina	192.9
32. Pennsylvania	199.4
33. Nevada	200.0
34. Delaware	200.2
35. Maryland	202.4
36. Georgia	203.0
36. Indiana	203.0
38. Rhode Island	203.6
39. Ohio	204.8
40. Missouri	214.4
41. Tennessee	220.6
42. Kentucky	220.9
43. Michigan	221.5
44. Arkansas	221.8
45. New York	225.1
46. West Virginia	229.4
47. Louisiana	230.0
48. Alabama	235.5
49. District of Columbia	239.4
50. Oklahoma	241.6
51. Mississippi	266.5

SOURCE: Kaiser State Health Facts, Number of Deaths Due to Diseases of the Heart per 100,000 Population, 2007, [www.statehealthfacts.org/comparamtable.jsp?ind=77&cat=2](http://www.statehealthfacts.org/comparamtable.jsp?ind=77&cat=2); The Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics Report Volume 58, Number 19, May 2010, Table 29; [www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58\\_19.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf).

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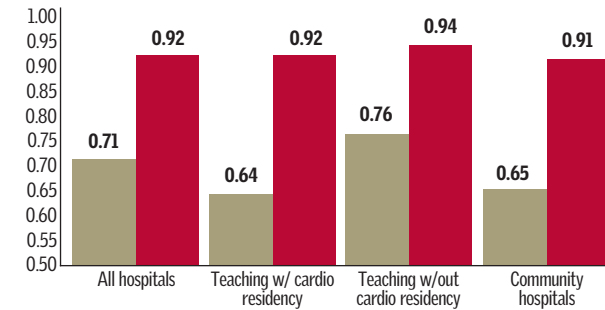


# FACTFILE



## CABG RISK-ADJUSTED MORTALITY INDEX, BY HOSPITAL GROUP

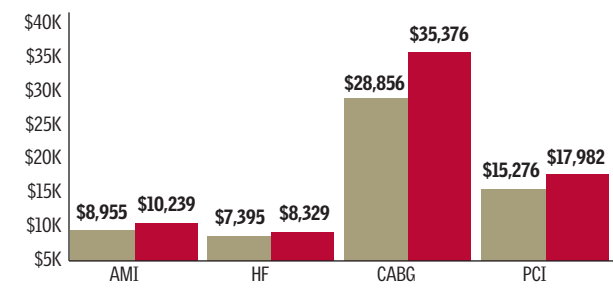
The 50 Top Cardiovascular Hospitals had 23% lower mortality (risk-adjusted) than nonwinners for CABG procedures across all hospitals.



Legend: ■ Winners ■ Nonwinners  
SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012.

## COST PER CASE, TEACHING HOSPITALS WITHOUT CARDIOVASCULAR RESIDENCY PROGRAMS

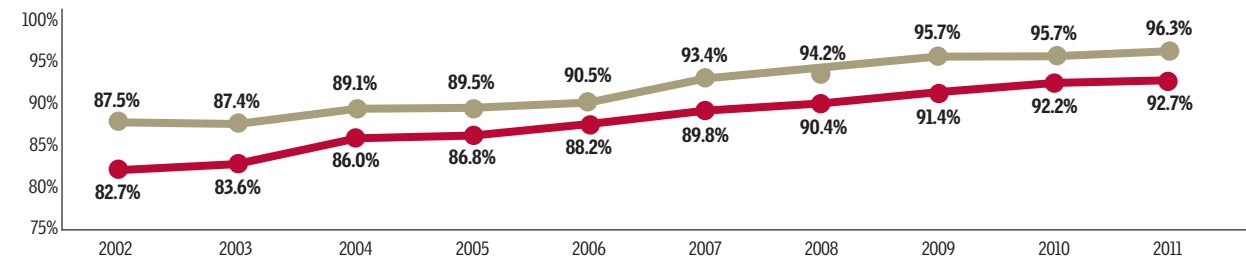
The winning teaching hospitals without cardiovascular residency programs had wage- and severity-adjusted CABG costs some \$6,520 (18%) lower per case than nonwinning peers.



Legend: ■ Winners ■ Nonwinners  
SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012.

## CARDIOVASCULAR HOSPITALS INCREASE IMA USE

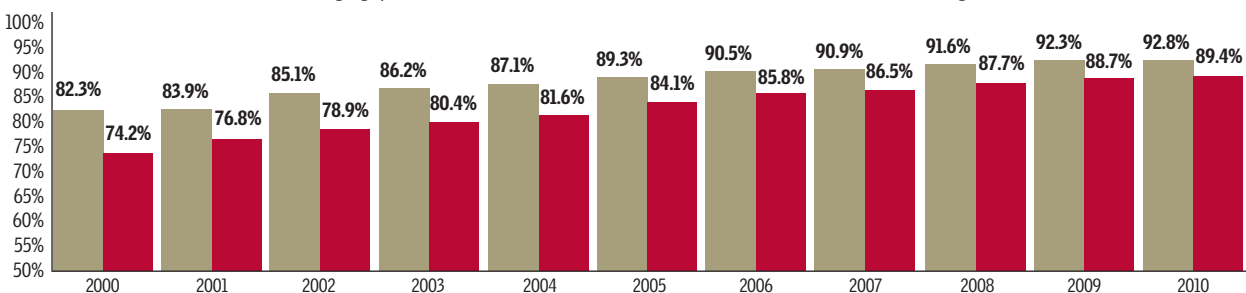
Surgeons commonly use vessels from the saphenous vein of the leg, the radial artery from the arm, and, increasingly, the internal mammary artery from the chest when performing a CABG. Between study years 2002 and 2011, both winners and nonwinners of the cardiovascular award have increased IMA use.



Legend: ■ Winners ■ Nonwinners  
SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012.

## IMA USAGE DISPARITY BETWEEN MEN AND WOMEN DECREASES

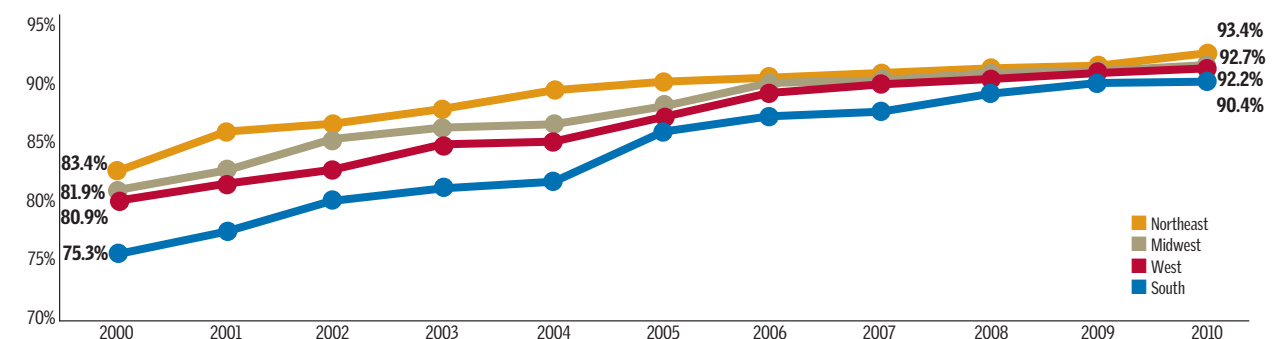
Between 2000 and 2010, the IMA usage gap between men and women decreased, but IMA use in women still lags behind men, 89% versus 93%.



Legend: ■ Men ■ Women  
SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012.

## NORTHEAST LEADS IMA USAGE, BUT SOUTH NARROWS THE GAP

IMA utilization is highest in the Northeast, followed by the Midwest and West, and lowest in the South. Although this order remained constant between 2000 and 2010, the South had the greatest increase in utilization, thus narrowing the gap.



SOURCE: Thomson Reuters 50 Top Cardiovascular Hospitals Study, 2012.

