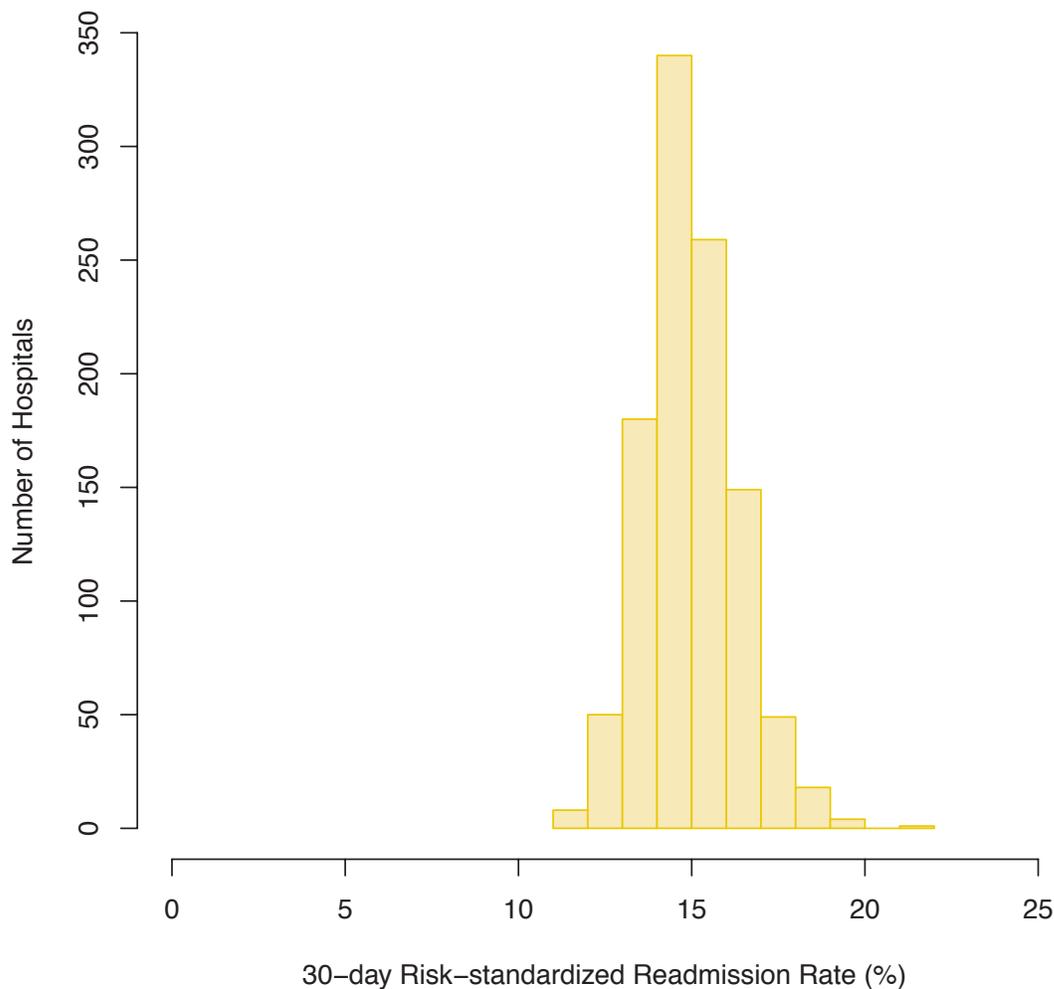


HOSPITAL CHARACTERISTICS

► Variation in 30-day readmission rates across hospitals following isolated coronary artery bypass graft surgery.

The Centers for Medicare & Medicaid Services (CMS) periodically provides a comprehensive overview of national performance on the following readmission measure: hospital-level 30-day risk-standardized readmission rate (RSRR) following isolated coronary artery bypass graft (CABG) surgery [1]. The CABG readmission measure includes Medicare fee-for-service (FFS) beneficiaries aged 65 or older [2]. “Isolated” CABG procedures are those performed without concomitant high-risk cardiac and non-cardiac procedures, such as valve replacement [2]. The CABG readmission measure assesses unplanned readmissions for any reason within 30 days of discharge from a hospital stay for CABG surgery [2]. Patients can be readmitted to the same hospital or to a different hospital [2]. The CABG readmission measure has been publicly reported on [Hospital Compare](#) since 2015 and will be included in the Hospital Readmissions Reduction Program (HRRP) in Fiscal Year 2017 [3].

FIGURE I Distributions of hospital RSRRs (%) for CABG, July 2011-June 2014.



Prepared for CMS by Yale New Haven Health Services Corporation (YNHHSC) Center for Outcomes Research and Evaluation (CORE) September 2015

Variation in CABG RSRRs reflects differences in performance among hospitals; wider distributions suggest more variation in quality, and narrower distributions suggest less variation in quality. To determine the extent of variation present in the CABG readmission measure, we examined hospital RSRRs for the July 2011 – June 2014 reporting period. To ensure accurate assessment of each hospital, the measure uses a statistical model to adjust for key differences in patient risk factors that are clinically relevant and that have strong relationships with the readmission outcome [2].

TABLE I *Distribution of hospital RSRRs (%) for CABG, July 2011-June 2014.*

Distribution of CABG RSRRs (%)	
Maximum	21.0
90%	16.7
75%	15.8
Median (50%)	14.9
25%	14.1
10%	13.3
Minimum	11.4

Hospital RSRRs for CABG were normally distributed and centered at 14.9%. The hospitals that were at the 25th and 75th percentiles had a 1.7 percentage point difference in performance. The absolute difference between the 10th and 90th percentiles was 3.4 percentage points. Figure 1 and Table 1 display the distribution for hospitals with 25 or more qualifying discharges.

While half of hospitals had RSRRs within a 1.7 percentage point range around the median hospital's RSRR, the absolute difference in RSRRs across all hospitals was 9.6 percentage points. This supports continued opportunities for improvement.

1. Medicare Hospital Quality Chartbook 2014: Performance Report on Outcome Measures. Prepared by Yale New Haven Health Services Corporation Center for Outcomes Research and Evaluation for the Centers for Medicare and Medicaid Services 2014; <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>. Accessed 16 June 2015.

2. Suter L; Desai N, Zhang W, et al. 2015 Procedure-Specific Readmission Measures Updates and Specifications Report: Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA) – Version 4.0, Isolated Coronary Artery Bypass Graft (CABG) Surgery – Version 2.0; <https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1219069855841>. Accessed 26 June 2015.

3. "Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals, Final Rule." Federal Register / 22 August 2014; <http://federalregister.gov/a/2014-18545>. Accessed 16 June 2015.

Prepared for CMS by Yale New Haven Health Services Corporation (YNHHSC) Center for Outcomes Research and Evaluation (CORE) September 2015