## Performance on the stroke readmission measure: Hospitals that serve high and low proportions of African-American patients.

The Centers for Medicare \& Medicaid Services (CMS) periodically investigates select hospital practices that may impact a hospital's performance on the following readmission measure: hospital-level 30-day risk-standardized readmission rate (RSRR) following acute ischemic stroke [1]. The stroke readmission measure includes Medicare fee-for-service (FFS) beneficiaries aged 65 or older [2]. The stroke readmission measure assesses the occurrence of unplanned readmission for any cause within 30 days after discharge from hospitalization for acute ischemic stroke [2]. The stroke readmission measure has been publicly reported on Hospital Compare since 2014 [3].

FIGURE I Distributions of stroke RSRRs (\%) for hospitals with the lowest and highest proportions of African-American patients, July 2011-June 2014.


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Variation in RSRRs reflects differences in performance among hospitals; lower RSRRs suggest better quality, and higher RSRRs suggest worse quality. To understand the impact of caring for African-American patients, we examined RSRRs among hospitals with high and low proportions of African-American patients. Therefore, we compared the stroke RSRRs for the 277 hospitals with the lowest overall proportion of African-American Medicare FFS patients ( $0 \%$ of a hospital's Medicare FFS patients) to the 275 hospitals with the highest proportion of African-American Medicare FFS patients ( $\geq 23.8 \%$ of a hospital's Medicare FFS patients) for the July 2011 - June 2014 reporting period. Hospitals with the lowest and highest proportions of African-American patients are designated as those that fall within the lowest and highest deciles of all hospitals with 25 or more qualifying discharges, respectively. The proportion of African-American Medicare FFS patients for each hospital was determined using the Medicare Part A Inpatient Claims from 2013. All hospitals with 0\% African-American patients were included in the lowest decile. To ensure accurate assessment of each hospital, the stroke readmission measure uses a statistical model to adjust for key differences in patient risk factors that are clinically relevant and that have a strong relationship with the readmission outcome [2].

TABLE I Distributions of stroke RSRRs (\%) for hospitals with the lowest and highest proportions of African-American patients, July 2011-June 2014.

Stroke RSRR (\%)

|  | Lowest proportion (0\%) <br> African-American patients; <br> $\mathrm{n}=277$ | Highest proportion ( $\geq 23.8 \%)$ <br> African-American patients; <br> $\mathrm{n}=275$ |
| :---: | :---: | :---: |
| Maximum | 14.8 | 17.5 |
| $90 \%$ | 13.3 | 15.3 |
| $75 \%$ | 12.8 | 14.2 |
| Median $(50 \%)$ | 12.3 | 13.3 |
| $25 \%$ | 11.8 | 12.6 |
| $10 \%$ | 11.5 | 12.0 |
| Minimum | 8.7 | 10.8 |

The median stroke RSRR for hospitals with the highest proportion of African-American patients was $13.3 \%$ (interquartile range [IQR]: $12.6 \%-14.2 \%$ ). The median stroke RSRR for hospitals with the lowest proportion of African-American patients was $12.3 \%$ (IQR: $11.8 \%-$ 12.8\%; Figure 1 and Table 1).

Hospitals with the lowest proportion of African-American patients had a median stroke RSRR that was 1.0 percentage point lower than hospitals with the highest proportion.

[^0]Prepared for CMS by Yale New Haven Health Services Corporation (YNHHSC) Center for Outcomes Research and Evaluation (CORE) September 2015

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[^0]:    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/Hospi-talQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf. Accessed 16 June 2015.
    2. Dorsey K, Grady J, Desai N, et al. 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures: Acute Myocardial Infarction - Version 8.0, Heart Failure - Version 8.0, Pneumonia - Version 8.0, Chronic Obstructive Pulmonary Disease - Version 4.0, Stroke - Version 4.0; 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.
