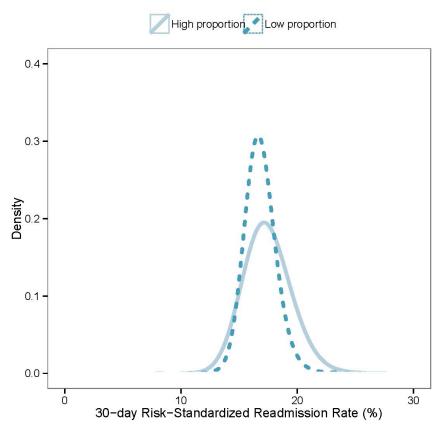
▶ **Performance on the pneumonia readmission measure:** Hospitals that serve high and low proportions of Medicaid patients.

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 pneumonia [1]. The pneumonia readmission measure includes Medicare fee-for-service (FFS) beneficiaries aged 65 or older and assesses the occurrence of unplanned readmission for any cause within 30 days after discharge from hospitalization for pneumonia [2]. The pneumonia readmission measure has been publicly reported on *Hospital Compare* since 2009 and has been included in the Hospital Readmissions Reduction Program (HRRP) since 2012 [3, 4]. For 2016 public reporting, the pneumonia readmission measure cohort has been expanded to include aspiration pneumonia and non-severe sepsis patients [2].

FIGURE 1. Distributions of pneumonia RSRRs (%) for hospitals with the lowest and highest proportions of Medicaid admissions, July 2012-June 2015.



Variation in RSRRs reflects differences in performance among hospitals; lower RSRRs suggest better quality and higher RSRRs suggest worse quality. To understand how caring for Medicaid patients might impact a hospital's RSRR, we examined RSRRs among hospitals with high and low proportions of Medicaid patients. We compared the pneumonia RSRRs for the 423 hospitals with the lowest overall proportion of Medicaid admissions ($\leq 5.7\%$ of a hospital's admissions) to the 423 hospitals with the highest overall proportion of Medicaid admissions ($\geq 28.6\%$ of a hospital's admissions) for the July 2012 – June 2015 reporting period. We defined hospitals with the lowest and highest proportions of Medicaid admissions as those that fall within the lowest and highest deciles of all hospitals with 25 or more qualifying discharges. The proportion of Medicaid admissions for each hospital was determined using the American Hospital Association (AHA) Annual Survey Database Fiscal Year 2014 [5]. To ensure accurate assessment of each hospital, the pneumonia 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].

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TABLE 1. Distributions of pneumonia RSRRs (%) for hospitals with the lowest and highest proportions of Medicaid admissions, July 2012-June 2015.

Pneumonia RSRR (%)

	Lowest proportion ($\leq 5.7\%$) Medicaid admissions; n=423	Highest proportion (≥ 28.6%) Medicaid admissions; n=423
Maximum	23.1	24.1
90%	18.2	19.5
75%	17.4	18.4
Median (50%)	16.7	17.3
25%	16.1	16.3
10%	15.6	15.6
Minimum	12.9	14.1

The median pneumonia RSRR for hospitals with the lowest proportion of Medicaid admissions was 16.7% (interquartile range [IQR]: 16.1%- 17.4%; Figure 1 and Table 1). The median pneumonia RSRR for hospitals with the highest proportion of Medicaid admissions was 17.3% (IQR: 16.3%- 18.4%; Figure 1 and Table 1).

Hospitals with the lowest proportion of Medicaid admissions had a median pneumonia RSRR that was 0.6 percentage points lower than hospitals with the highest proportion.

- 1. 2015 Medicare Hospital Quality Chartbook. Prepared by Yale New Haven Health Services Corporation Center for Outcomes Research and Evaluation for the Centers for $Medicare\ and\ Medicaid\ Services.\ https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/hospitalqualityinits/outcomemeasures.html.\ Accessed$ March 1, 2016.
- 2. Dorsey, K., Grady, J. N., Desai, N., et al. 2016 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures: Acute Myocardial Infarction - Version 9.0, Chronic Obstructive Pulmonary Disease - Version 5.0, Heart Failure - Version 9.0, Pneumonia - Version 9.0, Stroke - $Version\ 5.0.\ https://www.qualitynet.org/dcs/ContentServer?c=Page\&pagename=QnetPublic\%2FPage\%2FQnetTier4\&cid=1219069855841.\ Accessed\ May\ 9,\ 2016.$
- 3. Hospital Inpatient Quality Reporting (IQR) Program Overview. QualityNet website. https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2F-Page%2FQnetTier2&cid=1138115987129. Accessed March 1, 2016.
- 4. Hospital Readmissions Reduction Program Overview. QualityNet website. https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2F-Page%2FQnetTier2&cid=1228772412458. Accessed March 1, 2016.
- 5. American Hospital Association (AHA) Annual Survey Database Fiscal Year 2014. http://www.ahadataviewer.com/book-cd-products/aha-survey/. Accessed March 2, 2016.

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