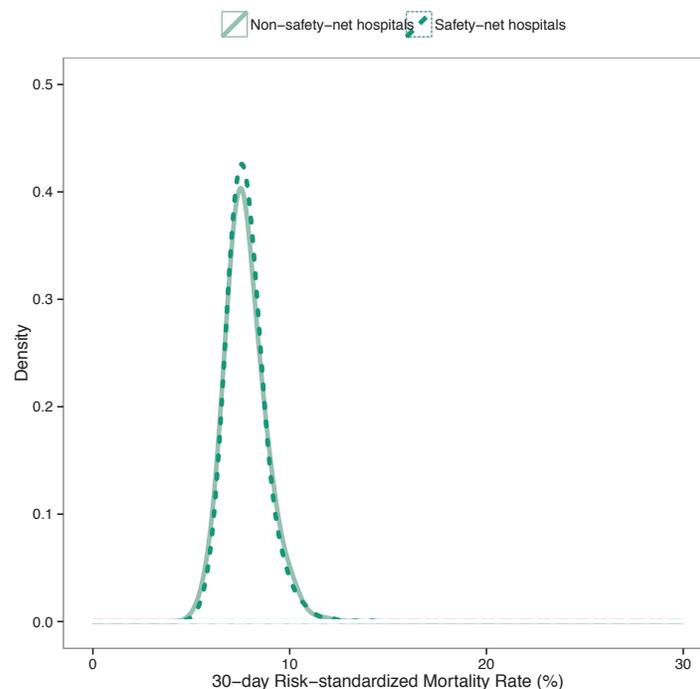


HOSPITAL CHARACTERISTICS

► Performance on the chronic obstructive pulmonary disease mortality measure by hospital characteristics: **safety-net status, teaching status, and urban or rural location.**

The Centers for Medicare & Medicaid Services (CMS) periodically investigates select hospital characteristics that may impact a hospital's performance on the following mortality measure: hospital-level 30-day risk-standardized mortality rate (RSMR) following chronic obstructive pulmonary disease (COPD) [1]. The COPD mortality measure includes Medicare fee-for-service (FFS) beneficiaries aged 65 or older [2]. The COPD mortality measure assesses death from any cause within 30 days of a hospital admission for COPD, regardless of whether the patient dies while still in the hospital or after discharge from the hospital [2]. The COPD mortality measure has been publicly reported on [Hospital Compare](#) since 2014 [3].

FIGURE I Distributions of hospital RSMRs (%) for COPD by safety-net status, July 2011-June 2014.



Variation in RSMRs reflects differences in performance among hospitals; lower RSMRs suggest better quality, and higher RSMRs suggest worse quality. To understand the impact of hospital safety-net status, teaching status, and urban or rural location, we examined RSMRs among hospitals with these characteristics with 25 or more qualifying admissions. Therefore, we evaluated the COPD RSMRs for a total of 3,686 hospitals by comparing 937 safety-net hospitals against 2,749 non-safety-net hospitals, 1,065 teaching hospitals against 2,621 non-teaching hospitals, and 2,984 urban hospitals against 702 rural hospitals for the July 2011 – June 2014 reporting period.

Safety-net hospitals are defined as those committed to caring for populations without stable access to care, specifically public hospitals or private hospitals with a Medicaid caseload greater than one standard deviation above their respective state's mean private hospital Medicaid caseload [4]. Teaching Hospitals provide post-graduate education for physicians completing residency and fellowship [4]. Urban and rural hospitals are defined by hospital self-identification [4].

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To ensure accurate assessment of each hospital, the COPD mortality 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 mortality outcome [2].

FIGURE 2 Distributions of hospital RSMRs (%) for COPD by teaching status, July 2011-June 2014.

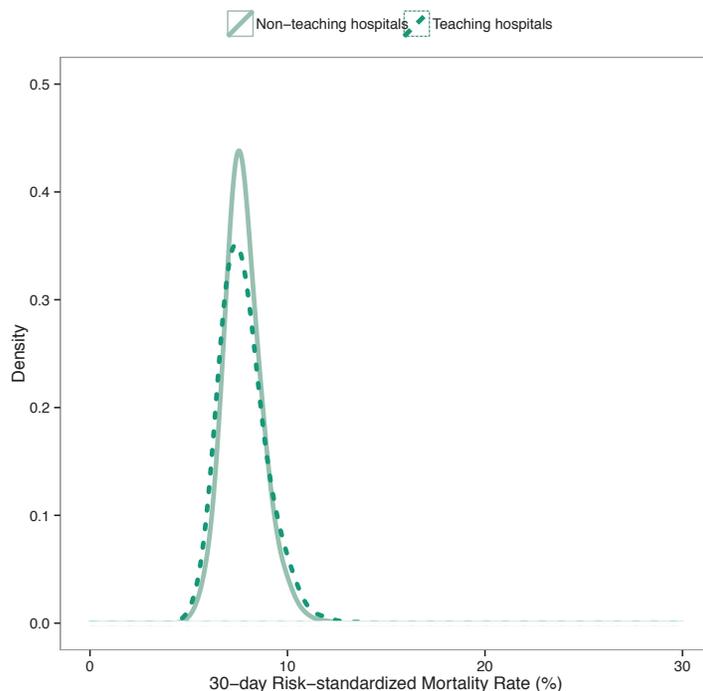


TABLE I Distributions of hospital RSMRs (%) for COPD overall, by safety-net status, teaching status, and urban or rural location, July 2011-June 2014.

	COPD RSMR (%)						
	Overall; n=3686	Safety-net hospitals; n=937	Non-safety-net hospitals; n=2749	Teaching hospitals; n=1065	Non-teaching hospitals; n=2621	Urban hospitals; n=2984	Rural hospitals; n=702
Maximum	13.8	13.8	12.8	13.8	12.1	13.8	10.7
90%	9.1	9.0	9.1	9.3	9.0	9.2	8.7
75%	8.3	8.3	8.4	8.4	8.3	8.4	8.1
Median (50%)	7.7	7.7	7.6	7.6	7.7	7.6	7.7
25%	7.1	7.1	7.1	6.9	7.1	7.0	7.2
10%	6.6	6.7	6.5	6.4	6.6	6.5	6.9
Minimum	4.8	5.0	4.8	5.0	4.8	4.8	5.3

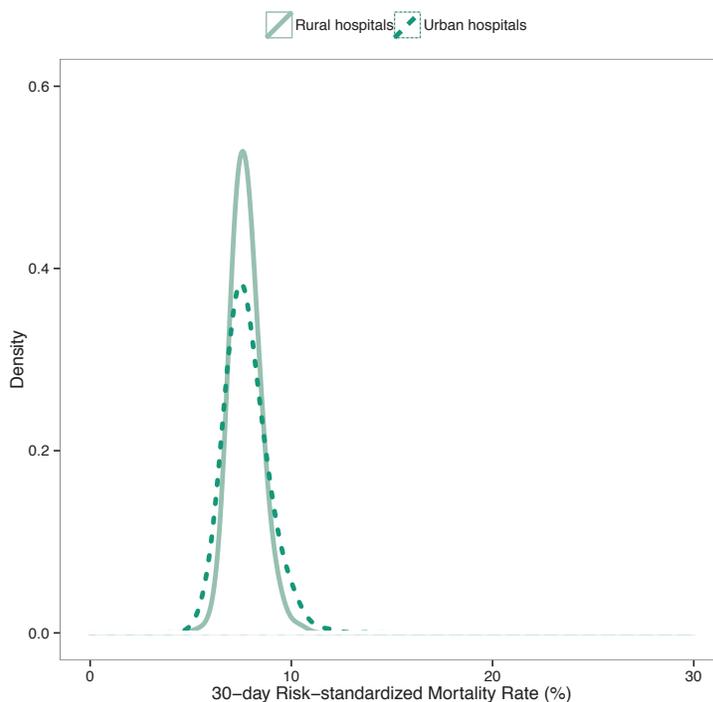
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The median COPD RSMR for all hospitals was 7.7% (interquartile range [IQR]: 7.1%-8.3%; Table 1). The median COPD RSMR for safety-net hospitals was 7.7% (IQR: 7.1%-8.3%) and for non-safety-net hospitals was 7.6% (IQR: 7.1%-8.4%; Figure 1 and Table 1). The median COPD RSMR for teaching hospitals was 7.6% (IQR: 6.9%-8.4%) and for non-teaching hospitals was 7.7% (IQR: 7.1%-8.3%; Figure 2 and Table 1). The median COPD RSMR for urban hospitals was 7.6% (IQR: 7.0%-8.4%) and for rural hospitals was 7.7% (IQR: 7.2%-8.1%; Figure 3 and Table 1).

FIGURE 3 Distributions of hospital RSMRs (%) for COPD by urban or rural location, July 2011-June 2014.



Safety-net hospitals had a median COPD RSMR that was 0.1 percentage points higher than non-safety-net hospitals, teaching hospitals had a median COPD RSMR that was 0.1 percentage points lower than non-teaching hospitals, and urban hospitals had a median COPD RSMR that was 0.1 percentage points lower than rural

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