2011 Masters Thesis

EVALUATING FOR-PROFIT AND NOT-FOR-PROFIT MEDICARE ADVANTAGE PLANS BASED UPON THE STAR RATINGS: DOES QUALITY OF CARE DIFFER?

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ABSTRACT

Background

Since 2008, the Centers for Medicare and Medicaid Services (CMS) has assigned Medicare Advantage plans a rating of one to five STARs based on certain quality measures. Beginning in 2012, under the Patient Protection and Affordable Care Act (PPACA), plans with 4 or higher STARs will receive bonus payment, whereas low performance plans will face reimbursement and enrollment restrictions.

Organizational characteristics of Medicare Advantage plans vary by tax status. For-profit plans may or may not provide better quality of care than not-for-profit plans.

Objective

This study investigates whether health plan characteristics are associated with quality of care based on the Medicare Advantage STAR ratings. We are interested in comparing for-profit and not-for-profit plans.

Methods

We conducted a cross-sectional observational study to compare the STAR ratings between for-profit and not-for-profit Medicare Advantage contracts in 2010. Our study sample included 409 (72% of total 575) contracts, which covered 10.56 million (90% of the Medicare Advantage population) Medicare beneficiaries in 2,872 counties across the United States.

The dependent variables in both analytic models were the STAR ratings. In the first model, in which we applied a multivariate linear regression, the independent variables included tax status, contract age, contract types, operating area, and enrollment at contract level. In the second model, in which we introduced a mixed effects model to address geographic variation, the individual-level independent variables included tax status, contract age, contract types, and enrollment at county level; the group-level independent variable was the geographical location (county) where the Medicare Advantage contracts operated.

Results

Tax status was strongly associated with STAR ratings. On average, not-for-profit contracts received a 0.65 higher STARs than for-profit contracts ($p<0.0001$, 95% CI=[0.52, 0.78]). In the regression model, the STAR difference reduced from 0.65 to 0.55 but remained statistically significant ($P<0.0001$, 95% CI=[0.43, 0.67]). In the mixed effects model, the adjusted difference was 0.6 ($P<0.0001$), which was larger than the adjusted difference in the regression model.

Conclusion

Tax status is important in understanding the Medicare Advantage STAR ratings. In 2010, not-for-profit contracts received higher STAR ratings than for-profit contracts. Larger, established (older) and not-for-profit Medicare Advantage plans appear more likely to receive higher STAR ratings than plans with other structural characteristics.