Does Comparing Physicians’ Performance to the National Average in an Academic Institution Incentivize them for Increased Productivity?

Samer G. Zammar MD, MPH; Robert E. Harbaugh MD; Elias B. Rizk MD.  
*Penn State Health, Department of Neurosurgery, Hershey, PA*

Introduction: Report cards were issued to physicians at our institution highlighting every clinician’s performance in comparison to the national average. The hospital ceased the report cards’ release at the end of 2017. We decided to study whether this change impacted the the office visits of our clinicians as this is linked to the departments’ productivity and performance.

Methods: Data from the yearly actual and budgeted office visits were analyzed from 2016 to 2019 for 15 departments in our center. The beginning of 2018 marked the time where report cards ceased to be available to clinicians. We set our null hypothesis ($H_0$) that the report card did not affect the individual departmental performance. The level of significance $\alpha$ was set at 5%.

Results: Yearly quality control charts were done for each department and did not show a significant outlier in the performance of any department. A Kruskal-Wallis test was used to test the pooled yearly performance of all departments and showed a $p$ value of 0.002 with significant better performance in 2016 compared to 2017 and 2018 but not to 2019. Grubb’s test for outliers was performed for each of the 15 departments and did not reveal any outlier in the performance (all $p$ values > 0.05). Thus $H_0$ could not be rejected.

Conclusions: There is no evidence that matching the physicians’ performance to the national average would incentivize them to change their behavior and become more productive nor there is evidence that removing it from the equation would disincentivize them to become less productive. That conclusion was observed among office visits in different medical and surgical specialties including neurological surgery.