

## Does ACO Adoption Change the Health Workforce Configuration in U.S. Hospitals?

Avi Dor, Patricia Pittman, Clese Erickson, Roberto Delhy, Xinxin Han

### OBJECTIVE

Since Accountable Care Organizations (ACOs) were first recognized in Medicare regulations in 2011, their numbers have been growing rapidly. Yet little is known about the way delivery systems adjusted to the change, and specifically about how those changes affect the health care workforce in hospitals. The purpose of this report is to provide a descriptive analysis of workforce differences between hospitals that participate in some form of an ACO and those that do not. In particular, the study examines whether care coordination activities are higher in ACO hospitals and whether nurse staffing and staffing of care coordination jobs are higher.

### DATA/SETTING

The report includes three analyses, using three different data sources. Part I analyzes 2013 and 2014 data on care coordination from the American Hospital Association (AHA) called Survey of Care Systems and Payment that asks a series of questions about shared savings programs, including ACOs. Part II is a cross sectional analysis (2014) using an operations database maintained by Premier to examine nursing staff levels and other jobs that might be related to care coordination on ACO hospitals versus non ACO hospitals. Part III uses both AHA's Survey of Care Systems and Payment to identify ACOs and AHA's annual survey to examine nurse staffing ratios in the two types of hospitals in 2013 and in 2014.

### DESIGN/METHODS

All analyses were descriptive. Part I and III compared two years of data, while, due to constraints on Premier data, Part II was cross sectional with just one year of data. Parts II and III constructed a measure of nurse staffing using hours per patient days, adjusting for Case Mix Index.

### RESULTS

The analysis of the AHA Care Systems survey revealed significantly higher rates of care coordination among ACO hospitals. The analysis of corresponding jobs, however, showed no significant differences, with slightly lower nurse staffing levels in ACO hospitals. Similarly, the analysis of nurse staffing per patient days suggested lower staffing levels in ACO hospitals.

### CONCLUSIONS

These findings are surprising and suggest the need for further analysis, both to confirm findings and explore their meaning. Lower nurse staffing levels have been shown to be associated with worse health outcomes. Moreover, nurse organizations have been advocating for higher staffing ratios. It is possible that ACO hospitals had inflated staffing prior to joining the program in order to raise their payment level, which for Medicare are based on the three years prior to joining the program. It is also possible that our data do not account for agency nurses and for outsourcing certain departments, and that ACOs are more likely to outsource. These and other hypothesis will be explored in future analyses, using additional years of data and controlling for a range of facility and regional level variables.

**Key Words:** ACO, care coordination, nurse staffing