Grant Outcome Report

Spreading Best Practices to Reduce Geographic Variation and Health Care Costs in New York State

KEY INFORMATION:

GRANTEE
The Maxwell School Center for Policy Research at Syracuse University

GRANT TITLE
Spreading Best Practices to Reduce Geographic Variation and Health Care Costs in New York State

DATES
January 2010 – August 2011

GRANT AMOUNT
$233,663

FUNDING
2009 Cost-Solicited

The Problem

Large geographic variations in health care spending are well documented, most famously using Medicare data analyzed by the Dartmouth Atlas. These data highlight substantial variations across states as well as within states. In a widely read article published in *The New Yorker*, Dr. Atul Gawande highlighted two regions in Texas—one region had one of the highest Medicare spending records in the nation, but worse health outcomes when compared to a neighboring county that spent less. Dr. Gawande then used the Dartmouth Atlas to identify regions across the country that provided low-cost, high-quality care and organized a roundtable with representatives from 10 of these regions, hoping to uncover possible reasons for their success. Findings revealed many different paths to achieving lower-cost, higher-quality care, with each region adopting approaches that were tailored to its local culture.

While New York is one of the costliest states overall for Medicare, the Dartmouth Atlas suggests that large variations in spending and health outcomes exist within the State. Research shows that higher spending and more treatment do not translate into higher-quality care, therefore presenting an opportunity to reduce costs without impairing health outcomes. Identifying best care practices in New York and within specific regions of the State has the potential to influence physician and hospital practice patterns at the regional and State level, and ultimately reduce health care spending. In 2010, the New York State Health Foundation (NYSHealth) awarded the Maxwell School Center for Policy Research at Syracuse University (the Maxwell School) a $233,663 grant to use the Dartmouth Atlas to analyze New York's health care spending and health outcome patterns. This was the first such analysis conducted in New York State and was intended to generate actionable information for health care providers to adopt lower-cost, higher-quality practices.

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Grant Activities and Outcomes

The Maxwell School proposed to conduct the project in two phases:

- During Phase I, the Maxwell School would use the Dartmouth Atlas to analyze Medicare health care use, spending, and quality data across and within New York's hospital referral regions (HRRs) and hospital service areas (HSAs).[1] Data would be analyzed at the individual hospital level on Medicare patients in their last two years of life, all of whom had been diagnosed with three to five chronic conditions. The Dartmouth Atlas data would also be risk-adjusted for severity, income, co-morbidities, and other relevant factors so that the final variances would be due to physician practice. Ultimately, this analysis would identify within each region those hospitals that provide lower-cost, higher-quality care (the top performers); those that provide higher-cost, lower-quality care (bottom performers); and those that fall in the middle.
- During Phase II, the Maxwell School would convene 18 roundtable discussions in six regions of the State to identify and spread best practices. Using the data analysis and through regional convenings with physicians, hospital executives, and other health care leaders around the State, the project would uncover factors that explain the practices attributed to better results and determine ways to replicate them. The core focus would be to assess the best practices and treatment styles of top performers, and encourage middle and bottom performers to adopt those practices.

The Maxwell School team encountered a few unanticipated challenges during the project period. The team found that limitations with the Dartmouth Atlas data had the potential to undermine the analysis in determining actionable interventions. The team ultimately decided to supplement the data with the Statewide Planning and Research Cooperative System (SPARCS) and Medicare hospital cost reports, which were more comprehensive and allowed the team to accurately construct costs of care in every New York State hospital at the departmental level to measure the variations of health expenditures.

Due to the limitations of the Dartmouth Atlas data, the Maxwell School team also revised its study plan to instead analyze hospitals in five peer groups (major teaching, minor teaching, urban, rural, and critical access), which would provide a more meaningful comparison of the variations across different types of hospitals in New York. The team also focused on two clinical conditions–acute myocardial

[1] Per the Dartmouth Atlas, HRRs are the "regional health care markets for tertiary medical care and areas that serve as a major referral center." These regions are defined by determining where patients are referred to for care. HSAs are local health care markets for hospital care, which indicate where residents receive most of their hospitalizations from hospitals in the area based on zip codes. For more information, visit: http://www.dartmouthatlas.org/data/region.

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infarction (AMI) and congestive heart failure (CHF)–to examine cost patterns at the departmental level within each peer group hospital.

Findings and results from the project include:

- Variation, as measured by the combination of SPARCS and Medicare cost report data, was consistent with the variation found in the Dartmouth Atlas data, validating the Dartmouth Atlas findings.
- Variation in total cost between and within hospital peer groups for AMI was not explained by characteristics such as length of stay or case mix index. The team further segregated hospitals into refined peer groupings and found that there was still a substantial unexplained variation between and within these hospital peer groupings in terms of cost.
- Though the variation in total cost between and within hospital peer groups was smaller for CHF discharges, the variation also could not be explained by length of stay or case mix.
- No relationship between spending and performance on the Centers for Medicare & Medicaid Services (CMS) quality of care scores was observed.
- Rather than organizing regional convenings, the team conducted site visits at six hospitals around the State and interviewed hospital leadership to further explore and understand the reasons behind the variation in cost. The team found that despite the high scores that hospitals received on the CMS quality indicators, costs for AMI and CHF at the total, routine, and ancillary level had no consistent relationship to any hospital characteristics (e.g., clinical and administrative management; primary care and specialist relationship; use of health information technology; etc). High or low costs were particular to individual hospitals and their unique geography, marketplace, workforce, culture, and other characteristics.

In April 2011, the Maxwell School team published its findings in a report, "Beyond the Dartmouth Atlas of Health Care: Exploring Variations in Inpatient Hospital Costs in New York State – the Cases of Acute Myocardial Infarction

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(AMI) and Congestive Heart Failure (CHF)."[2] In May 2012, the Maxwell School team presented its findings at the American Heart Association Quality of Care and Outcomes Research Conference.

Future

Understanding variations in health care continues to be one of the top federal health policy objectives. The findings from this report support the overall conclusion that each hospital has a unique environment and requires a tailored approach to improving the value of its health care. More importantly, additional research is needed to further understand geographic variations in health. In 2011, CMS developed four datasets that allowed for deeper evaluation on utilization and quality of health services for the Medicare fee-for-service population. These new datasets allow researchers and policymakers to view demographic, utilization, and quality indicators at the state level and at the HRR level.[3] The Maxwell School team plans to submit its research to a peer-reviewed journal.

[2] The report is available at: http://nyshealthfoundation.org/resources-and-reports/resource/beyond-dartmouth-atlas-health-care-exploring-variations-inpatient-costs-nys.

[3] More information about this CMS initiative is available at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation/index.html.

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BACKGROUND INFORMATION:

ABOUT THE GRANTEE

Established in 1994, the Maxwell School Center for Policy Research conducts a broad range of interdisciplinary research and other activities related to aging, disability, and health; social welfare and income security policy; domestic, urban, and regional issues; and public finance. The Center includes faculty from several departments within the Maxwell School, mainly economics, public administration, and sociology, and houses close to 65 faculty, staff, and graduate students.

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