MedicalXpress

Doctors trained in higher expenditure regions spend more, may add to rising health care costs

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A study published today in the *Journal of the American Medical Association* (*JAMA*) shows that physicians who do residency training in regions of the country with higher health care spending patterns continue to practice in a more costly manner - even when they move to a geographic area where health care spending is lower.

Immediately following residency, physicians whose residencies were in higher-spending regions spent 29 percent more on average than their peers who had trained in lower-spending areas of the country, according to the study by researchers at Milken Institute School of Public Health (Milken Institute SPH) at the George Washington University. The research was done in collaboration with colleagues at the Robert Graham Center and the American Board of Family Medicine.

"Communities that recruit physicians who have trained in areas where more health care services are the norm will practice more expensive medicine but not necessarily produce better health outcomes," says lead author Candice Chen, MD, MPH, who did the research while an assistant research professor at Milken Institute SPH at the George Washington University. "Doctors trained in an environment where health services are used judiciously may ultimately be providing better value for patients and cost savings for the system."

The study, which appears in the December 9 issue of *JAMA*, looked at

physicians who completed residencies between 1992 and 2010 and examined the relationship between the spending patterns in the region in which their residency program was located and their spending patterns as practicing physicians, using Medicare claims data. The researchers found that exposure to spending patterns during residency appears to imprint on physicians and they continue to practice with a similar spending pattern for years.

Overall, the researchers found that physicians unadjusted mean spending was $1,847 higher per Medicare beneficiary for doctors who had trained in higher-spending versus lower-spending parts of the country.

Even when the researchers adjusted for patient, physician, and community factors that might account for higher spending, they still found that physicians who had trained in the higher expenditure areas spent more—on average about $522 more per Medicare patient.

"Evidence suggests that there is wide variation in Medicare spending, with higher spending associated with more inpatient-based and specialist-oriented care. A number of studies also show that higher spending for health care doesn't necessarily lead to better outcomes," says Fitzhugh Mullan, MD, the Murdock Head Professor of Medicine and Health Policy at Milken Institute SPH and senior author of the paper.

The study shows that the effect on physician spending was most pronounced for doctors who had recently graduated from a residency program. The study found that within seven years of completing residency training, there was a $2,434 mean difference in spending per Medicare patient between physicians who had trained in high-spending areas versus those who had trained in lower-spending regions.

Over time, that spending difference tended to diminish. The researchers found no statistically significant differences in spending related to

training location 16 to 19 years after a doctor had completed residency. However, the difference did persist for up to 15 years.

The research is likely to contribute to the intensifying national discussion of Medicare's contributions to graduate medical education (GME), an investment that totals $10 billion a year. Previous work by Mullan and Chen documented an irregular distribution of federal support for GME with teaching hospitals in the Northeastern United States generally receiving more residents and greater Medicare GME payments per resident than teaching hospitals elsewhere in the country. The Northeastern United States also has high per patient spending patterns - a region of the country where a disproportionate number of residents currently train.

These analyses suggest that consideration be given to preferential Medicare GME support for residency programs in lower-spending regions of the US. "If more GME funding were allotted to programs and regions of the country where health care spending is lower, the result might be a significant contribution to the reduction of healthcare costs in general," Mullan said.

More information: Paper: doi:10.1001/jama.2014.15973

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