Higher levels of primary care physicians in area associated with favorable outcomes for patients

May 24 2011

Medicare beneficiaries residing in areas with higher levels of primary care physicians per population have modestly lower death rates and fewer preventable hospitalizations, according to a study in the May 25 issue of *JAMA*.

"Strengthening the role of primary care is a key element in most proposals to improve the outcomes and efficiency of health care delivery in the United States. With the aging population and the waning interest in primary care by U.S. medical school graduates, some have projected a large shortage of general internists and family physicians to care for a growing number of elderly patients," according to background information in the article. "Despite a widespread interest in increasing the numbers of primary care physicians to improve care and to moderate costs, the relationship of the primary care physician workforce to patient-level outcomes remains poorly understood."

Chiang-Hua Chang, Ph.D., of Dartmouth Medical School, Hanover, N.H., and colleagues conducted a study to examine whether high levels of primary care physician workforce are associated with lower mortality, fewer ambulatory care sensitive condition (ACSC) hospitalizations, and lower spending in Medicare beneficiaries. ACSC hospitalizations are regarded as largely preventable admissions when adequate and timely ambulatory (outpatient) care is provided. The study consisted of an analysis of the outcomes of a 20 percent sample of fee-for-service

Medicare beneficiaries age 65 years or older (n = 5,132,936) in 2007, and used 2 measures of adult primary care physicians (general internists and family physicians) across Primary Care Service Areas (n = 6,542): American Medical Association (AMA) Masterfile nonfederal, office-based physicians per total population; and full-time equivalents (FTEs), a workforce measure that is an estimate of the ambulatory clinical FTEs of primary care physicians, derived from Medicare office- and clinic-based claims of primary care physicians.

The researchers found marked variation in the primary care physician workforce across areas, but low correlation was observed between the 2 primary care workforce measures. After adjusting for certain patient and area variables, only small differences were observed in mortality and Medicare program spending across quintiles (one of five groups) of primary care physicians per population. However, beneficiaries residing in areas with the highest quintile of primary care physicians per population had 6 percent lower rates of ACSC hospitalizations, with adjusted rates of 74.90 vs. 79.61 per 1,000 beneficiaries, respectively, for highest vs. lowest quintile of primary care workforce.

Stronger associations were observed in models that used primary care physician FTEs as the measure of primary care workforce. "For example, not only did beneficiaries residing in the highest quintile of primary care FTEs have 5 percent lower mortality, but also 9 percent fewer ACSC hospitalizations and 1 percent higher total Medicare program spending. The adjusted rates of the highest compared with lowest quintile were 5.19 vs. 5.49 deaths per 100 beneficiaries, 72.53 vs. 79.48 ACSC hospitalizations per 1,000 beneficiaries, and $8,857 vs. $8,769 total Medicare spending per beneficiary, respectively. There were significant trends in the association of primary care FTEs with mortality, ACSC hospitalizations, and acute care facility Medicare spending," the authors write.

"Our findings suggest that a higher local workforce of primary care physicians has a generally positive benefit for Medicare populations, but that this association may not simply be the result of having more physicians trained in primary care in an area. Instead, associations were much stronger with a measure of primary care activity that was linked to a central concept of primary care-ambulatory care delivered in an office or clinic setting by physicians trained in primary care. The FTEs measure also more accurately reflected physician retirement or part-time effort."

"The benefits of primary care workforce appear quite sensitive to the accurate discrimination of those physicians trained in primary care with those practicing ambulatory primary care. Recognizing this difference is important not just to improve primary care clinician measurement, but also as an indication of the drift of physicians trained as primary care physicians to nonprimary care careers. Increasing the training capacity of family medicine and internal medicine may have disappointing patient benefits if the resulting physicians are primary care in name only," the researchers conclude.

More information: JAMA. 2011;305[20]2096-2105.

Provided by JAMA and Archives Journals