



TEXAS ACADEMY *of* FAMILY PHYSICIANS

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Primary care – Better quality at lower costs

A brief overview of the evidence

States where more physicians are general practitioners show greater use of high-quality care and lower cost per Medicare beneficiary.

- Increasing the number of general practitioners in a state by 1 per 10,000 population (while decreasing the number of specialists to hold constant the total number of physicians) is associated with a rise in that state's quality rank of more than 10 places ($p < .0005$) as well as a reduction in overall Medicare spending of \$684 per beneficiary ($p < .0005$). Conversely, states where more physicians are specialists have lower-quality care and higher cost per beneficiary.
- The estimated effect of increasing the fraction of specialists by 1 per 10,000 is a drop in overall quality rank of almost 9 places ($p < .005$) and an increase in spending of \$526 per Medicare beneficiary ($p < .004$). The supply of nurses does not seem to affect either the use of high-quality care or total spending.

Source: Baicker, Katherine and Chandra, Amitabh. "Medicare Spending, the Physician Workforce, and Beneficiaries' Quality of Care." Health Affairs Web exclusive w4.184 (7 April 2004): 184-197.

[NOTE: This is one of the most commonly cited research piece on the value of primary care over specialty care. Notice where Texas shows up on the graphs.]

The addition of primary care physicians in a population results in better overall health outcomes for all patients.

- An increase of one primary care physician per 10,000 population (about a 20 percent increase) was associated with a 6 percent decrease in all-cause mortality and about a 3 percent decrease in infant, low-birthweight, and stroke mortality.
- For total mortality, an increase of one primary care physician per 10,000 population was associated with a reduction of 34.6 deaths per 100,000 population at the state level.

- Lower primary care physician supply and higher specialist-to-population ratios were associated with higher overall age-adjusted mortality, mortality from heart disease, mortality from cancer, neonatal mortality, life span, and low-birthweight ratios.

Source: Starfield, Barbara, et al. "The Effects of Specialist Supply on Populations' Health: Assessing the Evidence." Health Affairs Web exclusive w5.97 (15 March 2005): 97-107.

- Primary care medical homes can reduce or even eliminate racial and ethnic disparities in health care access and quality for people with health insurance.

Source: Beal, Anne C, et al. "Closing the Divide: How Medical Homes Promote Equity in Health Care: Results From the Commonwealth Fund 2006 Health Care Quality Survey." The Commonwealth Fund. 2007.

In addition to its relationship to better health outcomes, the supply of primary care physicians is associated with lower total costs of health services.

- For each 1 percent increase in primary care physicians, average-sized metropolitan areas experienced a decrease of 503 hospital admissions, 2,968 emergency room visits and 512 surgeries.

Source: Kravet, Steven J, et al. "Health Care Utilization and the Proportion of Primary Care Physicians." Amer J Med 121.2 (2008): 142-148.

- After adjustment for demographics, health insurance status, reported diagnoses, health perceptions, and smoking status, respondents reporting using a primary care physician compared with those using a specialist had 33 percent lower annual adjusted health care expenditures and lower adjusted mortality.

Source: Franks, P., and K. Fiscella. 1998. Primary Care Physicians and Specialists as Personal Physicians. Health Care Expenditures and Mortality Experience. Journal of Family Practice 47:105–9.

- Among U.S. elderly living in metropolitan areas, the average Medicare Part B reimbursement was \$1283 (study from 1996). After adjusting for local price differences and county characteristics, a greater supply of family physicians and general internists was significantly associated with lower Medicare Part B reimbursements. The reduction in reimbursements between counties in the highest quintile of family physician supply and the lowest quintile was \$261 per enrollee. In contrast, a greater supply of general practitioners and non-primary care physicians was associated with higher reimbursements per enrollee.

Source: Mark, D.H., M.S. Gottlieb, B.B. Zellner, V.K. Chetty, and J.E. Midtling. 1996. Medicare Costs in Urban Areas and the Supply of Primary Care Physicians. Journal of Family Practice 43:33–9.

- Hospitalization rates and expenditures for ambulatory care-sensitive conditions like diabetes and congestive heart failure are higher in areas where there are fewer primary care physicians and where access to primary care is limited.

Source: Bodenheimer, Tomas and Fernandez, Alicia. "High and Rising Health Care Costs. Part 4: Can Costs Be Controlled While Preserving Quality?" Ann Intern Med 143.1 (2005): 23-31.

Having a usual source of care reduces visits to emergency departments, while having no usual source of care and relying on EDs for care is associated with worse health outcomes and higher costs.

- For adults with low incomes (less than 200 percent of federal poverty level) who have no usual source of care, 16.4 percent of all ambulatory care visits in 1996 were to an ED, more than twice the rate of 7 percent for those with a usual source of care.
- Their ED visit rates rose from 16.4 percent in 1996 to 21.6 percent in 2004.

Source: Robert Graham Center; Graham Center One-Pager #57;
<http://www.aafp.org/afp/20090115/graham.html>

When people are unable to access primary care, they seek care in our overburdened and expensive emergency departments where it is highly unlikely they will receive well-coordinated and efficient health care.

- Emergency room visits in Texas jumped from 5.5 million in 1992 to 8.6 million in 2003. Almost half of those visits could have been addressed for less cost in a primary care setting.
- 42 percent to 56 percent of the visits to major Texas hospitals are primary-care related, depending on the institution.
- Texas hospitals reported that uninsured patients accounted for between 23 percent and 48 percent of those primary-care-related visits.

Source: "Code Red: The Critical Condition of Health Care in Texas." Task Force for Access to Health Care in Texas. 2006.

- From 1996 to 2006, ER visits in the U.S. increased more than 32 percent from 90.3 million to 119 million.
- While the proportion of those visits attributed to uninsured patients remained relatively flat between 1992 and 2005, the number of overall visits went up 28 percent.
- In an interesting trend, people earning more than 400 percent of the federal poverty level (about \$84,000 for a family of four) accounted for a growing portion of emergency room visits, while the number of ER visits by low wage earners showed no substantial increase.

Source: Pitts, Stephen R, et al. "National Hospital Ambulatory Medical Care Survey: 2006 Emergency Department Summary." National Health Statistic Reports, No 7. 6 August 2008. Centers for Disease Control and Prevention. 2008.

North Carolina officials launched a primary care network called Community Care of North Carolina (CCNC) designed to provide primary care medical homes and enhanced chronic care management for Medicaid patients. The network now serves more than 725,000 Medicaid patients.

- CCNC saved North Carolina taxpayers between \$231 million and \$255 million in fiscal years 2005 and 2006.

Source: Steiner, Beat D, et al. "Community Care of North Carolina: Improving Care Through Community Health Networks." Ann Fam Med 6.4 (2008): 361-367.

Geisinger Health System in Pennsylvania implemented the primary care medical home, complete with an integrated delivery system, EHR and other services for 2.5 million patients.

- Preliminary data show a 20 percent reduction in hospital admissions and a 7 percent savings in total medical costs.

Source: Paulus, Ronald A., et al. "Continuous Innovation In Health Care: Implications Of The Geisinger Experience." Health Affairs 27.5 (2008): 1235-1245.

Further Resources and Provided Articles

We would like to submit a few Web resources and four full articles as pdfs. Their descriptions and titles are listed beneath the links.

LINKS

- **The American Academy of Family Physicians** has put together a compendium of links to resources describing the value of primary care and family medicine to the efficient operation of health systems.
<http://www.aafp.org/online/en/home/policy/familymedvalue.html>
- **The Patient-Centered Primary Care Collaborative** has established a sizeable set of resources, including this collection of evidence that primary care-based health systems result in better care at lower costs.
<http://www.pcpc.net/content/evidence-quality>
- **The Texas Academy of Family Physicians** published a report examining the current state of health care in Texas and making the case for primary care-based reforms entitled “The Primary Solution.”
<http://www.tafp.org/advocacy/resources/primarySolution/default.asp>

PROVIDED ARTICLES

- Two of the most commonly cited studies on the relationship between primary care, specialty care, quality and cost:

Medicare Spending, the Physician Workforce, and Beneficiaries’ Quality of Care

Katherine Baicker and Amitabh Chandra

The Effects of Specialist Supply on Populations’ Health: Assessing the Evidence

Barbara Starfield, MD, MPH, *et al.*

- For a general overview of theory of why primary care-based systems provide better care at lower costs:

The Essential Role of Generalists in Health Care Systems

Robert L. Ferrer, MD, MPH; Simon J. Hambidge, MD, PhD; and Rose C. Maly, MD, MSPH

- For an exhaustive review of the literature on this subject and all of the citations included:

Contributions of Primary Care to Health Systems and Health

Barbara Starfield, MD, MPH