

Evaluation/Evidence of PCMH

Abundant research comparing nations, states and regions within the U.S., and specific systems of care has shown that health systems built on a solid foundation of primary care deliver more effective, efficient, and equitable care than systems that fail to invest adequately in primary care. However, some policy analysts have questioned whether these largely cross-sectional, observational studies are adequate for making inferences about whether implementing major policy interventions to strengthen primary care as part of health reform would in the relatively short term "bend the cost curve" at the same time as improving quality of care and patient outcomes.

Is there research using prospective, controlled study designs which shows what happens to quality, access and costs as a result of investments to enhance and improve primary care? Have recent evaluations documented the outcomes of interventions in the U.S. promoting primary care patient centered medical homes (PCMHs)?

This briefing document summarizes key findings from eight recent PCMH evaluation studies. These studies have investigated a variety of PCMH models, in a variety of settings ranging from integrated delivery systems to community-based office practices. Some evaluations examine interventions focused on general primary care patient populations, and others on high risk subsets. The evaluations span privately insured patients, Medicaid, SCHIP and Medicare beneficiaries, and the uninsured.

The full document is available for [download here](#) [1] and attached below.

Evidence of Quality

EVIDENCE ON THE EFFECTIVENESS OF THE PATIENT CENTERED MEDICAL HOME ON QUALITY AND COST

The patient centered medical home (PCMH) is a model of healthcare delivery that incorporates the following characteristics associated with better outcomes and lower costs:

- The PCMH is built upon the documented value of primary care in achieving better health outcomes, higher patient experience, and more efficient use of resources. Patients who receive care from a PCMH have continuous access to a personal physician who provides comprehensive and coordinated care for the large majority of their healthcare needs (from Institute of Medicine definition of primary care).
- The PCMH would be responsible for all of the patients' healthcare needs – acute care, chronic care, preventive services, and end of life care working with teams of healthcare professionals. The PCMH would coordinate the care of its patients with specialists, lab/x-ray facilities, hospitals, home care agencies, and all other healthcare professionals on the patient care team.
- The PCMH would adopt the principles of patient-centeredness: allowing patients free choice of physician, providing prompt appointments, reducing waiting times, delivering care based on the best evidence on clinical effectiveness, empowering patients to partner with their personal physicians on decision-making, and providing care in a culturally and linguistically appropriate manner.
- The PCMH would use health information systems to provide data and reminder prompts such that all patients receive needed services.

According to the [Center for Evaluative Clinical Sciences at Dartmouth](#) [2], states in the U.S. that

relied more on primary care have:

- Lower Medicare spending (inpatient reimbursements and Part B payments);
- Lower resource inputs (hospital beds, ICU beds, total physician labor, primary care labor and medical specialist labor);
- Lower utilization rates (physician visits, days in ICUs, days in the hospital, and fewer patients seeing 10 or more physicians); and
- Better quality of care (fewer ICU deaths and a higher composite quality score).¹

[Barbara Starfield of Johns Hopkins University](#) [3] reviewed dozens of studies, comparing healthcare in the U.S. with other countries as well within the U.S., and found that:

- Within the U.S., adults with a primary care physician rather than a specialist had 33 percent lower costs of care and were 19 percent less likely to die, after adjusting for demographic and health characteristics;
- Primary care physician supply is consistently associated with improved health outcomes for conditions like cancer, heart disease, stroke, infant mortality, low birth weight, life expectancy, and self-rated care;
- In both England and the U.S., each additional primary care physician per 10,000 persons is associated with a decrease in mortality rate of 3 to 10 percent;
- In the U.S., an increase of just one primary care physician is associated with 1.44 fewer deaths per 10,000 persons; and
- An orientation to primary care reduces socio-demographic and socio-economic disparities. African-Americans who have a primary care physician in particular are less likely to die prematurely.²

A medical home can reduce or even eliminate racial and ethnic disparities in access and quality for insured persons, a new [Commonwealth Fund](#) [4] report finds. When adults have a medical home, their access to needed care, receipt of routine preventive screenings, and management of chronic conditions improve substantially.³

The [Fund](#) [4] has also found that when primary care physicians in the United States effectively manage care in the office setting, patients with chronic diseases like diabetes, congestive heart failure, and adult asthma have fewer complications, leading to fewer avoidable hospitalizations.⁴

A [research team from RAND and the University of California at Berkeley](#) [5] undertook a rigorous evaluation of care provided according to PCMH principles. For almost 4,000 patients with diabetes, congestive heart failure (CHF), asthma and depression, they found that:

- Patients with diabetes had significant reductions in cardiovascular risk;
- CHF patients had 35% fewer hospital days; and
- Asthma and diabetes patients were more likely to receive appropriate therapy.⁵

The North Carolina Medicaid program enrolls recipients in a network of physician-directed medical homes. [A Mercer analysis](#) [6] showed that an upfront \$10.2 million investment for North Carolina Community Care operations in SFY04 saved \$244 million in overall healthcare costs for the state. Similar results were found in 2005 and 2006.⁶

The [Commonwealth Fund](#) [4] reports that Denmark has organized its entire healthcare system around patient centered medical homes, achieving the highest patient satisfaction ratings in the world. Primary care physicians are highly accessible and supported by an outstanding information system that assists them in coordinating care. Among Western nations, Denmark has among the lowest per capita health expenditures and highest primary care rankings.⁷

An evaluation of recent innovations in delivering primary care at a Group Health Cooperative

medical center shows significant success and rapid return on investment (ROI). The data led to a decision to invest in these best practices in all of Group Health's 26 medical centers by 2010. In one year, Group Health's PCMH pilot, compared to controls, broke even on its primary care staffing investment through reduced downstream utilization costs. For more information on this evaluation, please click [here](#) [7].

THE BOTTOM LINE: Care delivered by primary care physicians in a PCMH is consistently associated with better outcomes, reduced mortality, fewer preventable hospital admissions for patients with chronic diseases, lower utilization, improved patient compliance with recommended care, and lower Medicare spending.

Other Attachments

Attached are more presentations or other materials on this topic. These presentations are free to be downloaded to learn more. Please use appropriate acknowledgment and citation when sharing this content.

[Bob Berenson: Payment Approaches and Cost of the Patient Centered Medical Home - 07.16.08](#) [8]

[Bruce Landon: Evaluating the PCMH - How Will We Know if it Works? - 07.16.08](#) [9]

[Grumbach: Evidence of Quality - 10.16.09](#) [10]

[NC Mercer Findings - 03.24.05](#) [11]

[Melinda Abrams: Evaluating Systems of the PCMH - 07.16.08](#) [12]
[13]

[Richard Snyder: The Payer Perspective - 10.17.08](#) [14]

[Sandeep Wadhwa: Financing the PCMH: Making the Investment in Primary Care - 10.17.08](#) [15]

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- 1 Dartmouth Atlas of Health Care, Variation among States in the Management of Severe Chronic Illness, 2006
 - 2 Starfield B, Shi L, and Macinko J., Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving chronic illness care: translating evidence into action. *Health Aff (Millwood)*. 2001;20:64-78
 - 3 A. C. Beal, M. M. Doty, S. E. Hernandez, K. K. Shea, and K. Davis, Closing the Divide: How Medical Homes Promote Equity in Health Care: Results From The Commonwealth Fund 2006 Health Care Quality Survey, The Commonwealth Fund, June 2007
 - 4 Commonwealth Fund, Chartbook on Medicare, 2006;
 - 5 A Robert Wood Johnson-funded evaluation of the effectiveness of the Chronic Care Model and the IHI Breakthrough Series Collaborative in improving clinical outcomes and patient satisfaction with care, accessed Dec. 10, 2009 at <http://content.nejm.org/cgi/content/abstract/356/24/2496> [16]; Higashi, Takahiro, Wenger, Neil S., Adams, John L., Fung, Constance, Roland, Martin, McGlynn, Elizabeth A., Reeves, David, Asch, Steven M., Kerr, Eve A., Shekelle, Paul G. Relationship between Number of Medical Conditions and Quality of Care *N Engl J Med* 2007 356: 2496-2504
 - 6 Mercer Cost Effectiveness Analysis - AFDC only for Inpatient, Outpatient, ED, Physician Services, Pharmacy, Administrative Costs, Other). From presentation by Dobson, Al, Patient-Centered Primary Care Roundtable, March 12, 2007. Accessed June 24, 2007 at www.patientcenteredprimarycare.org/Meetings/March2007/March.htmst [17]

Source URL: <http://www.pcpcc.net/evaluation-evidence>

Links:

- [1] http://pcpcc.net/files/Grumbach_et-al_Evidence-of-Quality_101609_0.pdf
- [2] <http://tdi.dartmouth.edu/>
- [3] http://faculty.jhsph.edu/default.cfm?faculty_id=667
- [4] <http://www.commonwealthfund.org/>
- [5] <http://content.nejm.org/cgi/content/abstract/356/24/2496>
- [6] <http://www.pcpcc.net/files/Mercer%20SFY04.pdf>
- [7] <http://www.ghc.org/news/news.jhtml?repositid=/common/news/news/20090618-medicalhome.html>
- [8] http://www.pcpcc.net/files/Berenson_Payment-Approaches-and-Cost-of-PCMH_071608.ppt
- [9] http://www.pcpcc.net/files/Landon_Evaluating-the-PCMH_How-We-Know-Works_71608.ppt
- [10] http://www.pcpcc.net/files/Grumbach_et-al_Evidence-of-Quality_101609_0.pdf
- [11] <http://www.pcpcc.net/content/nc-mercero-findings>
- [12] http://www.pcpcc.net/files/Abrams_Evaluating-Systems-of-the-PCMH_071608.pp
- [13] http://www.pcpcc.net/files/Jean_et-al_Transformation-is-Hard-Work.pp
- [14] http://www.pcpcc.net/files/Snyder_The-Payer-Perspective.ppt
- [15] http://www.pcpcc.net/files/Wadhwa_Financing-PCMH-Making-The-Investment-in_Primary-Care_1008.ppt
- [16] <http://content.nejm.org/cgi/content/abstract/356/24/2496>;
- [17] <http://www.patientcenteredprimarycare.org/Meetings/March2007/March.htmst>