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# Reducing Hospital Costs by Means of Enhanced Primary Care

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# Prescriptions for Excellence in HEALTH CARE

A COLLABORATION BETWEEN JEFFERSON SCHOOL OF POPULATION HEALTH AND LILLY USA, LLC

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## Reducing Hospital Costs by Means of Enhanced Primary Care

By James M. Gill, MD, MPH

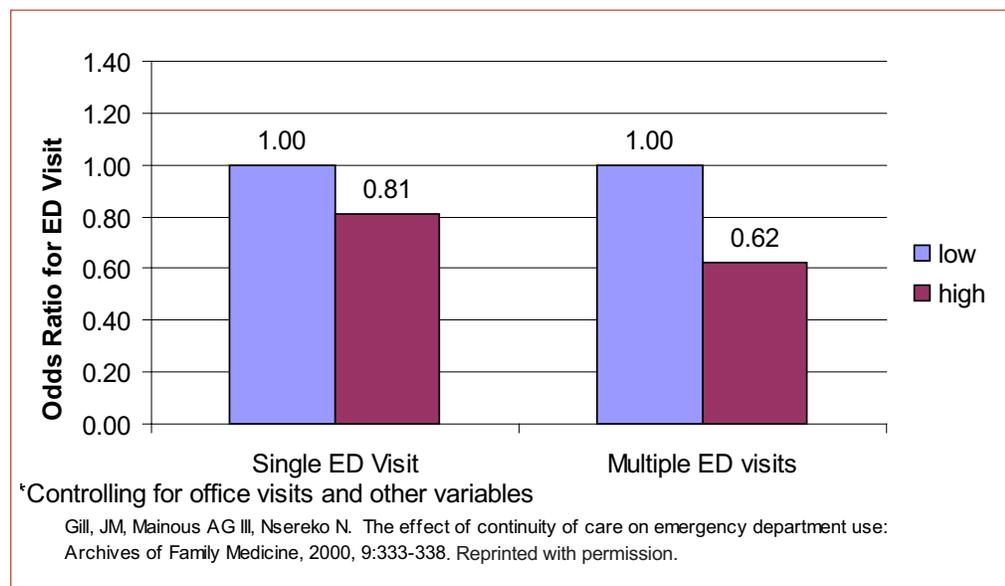
### The Benefits of Primary Care

Evidence regarding the benefits of primary care is accumulating steadily. The supply of primary care physicians has been associated with improved outcomes, including reduced incidence of and mortality from cancer<sup>1</sup> and fewer avoidable hospitalizations.<sup>2</sup> Moreover, surveys of patients from different countries suggest that primary care performance improves in countries with more developed systems of primary care.<sup>3</sup>

Specific components of primary care also have been associated with improved health outcomes. Having a regular source of primary care has been associated with improved preventive care,<sup>4</sup> better health outcomes, and lower total costs.<sup>5</sup> Greater continuity with one's primary care provider has been associated with improved preventive care,<sup>6</sup> and fewer emergency department visits<sup>7</sup> (Figure 1) and hospitalizations (Figure 2).<sup>8</sup>

Despite the proven benefits of primary care, disturbing shortages have developed in this specialty across the United States. Current calculations indicate that the future supply of physicians will be inadequate to meet the health care needs of the aging US population. One recent study projects a shortage of 200,000 physicians by 2020.<sup>9</sup> Medical students continue to demonstrate a preference for non-primary care specialties, partly because

Figure 1. Association Between Emergency Department (ED) Visits and Continuity



these specialties offer higher pay and a lower workload.<sup>10</sup>

The United States has reached a crossroads with respect to primary care. Unless the decline in primary care specialists is reversed and new approaches to care for chronic illnesses are made readily available to all who need them, our health care system will continue to disintegrate and become unaffordable for a majority of Americans.

### The Patient-Centered Medical Home – A Brief History

The Patient-Centered Medical Home (PCMH) is a new model of primary

care that has the potential to reverse the decline in this vital medical specialty. First introduced by the American Academy of Pediatrics (AAP) in 1967, the medical home concept initially referred to a central location for archiving children's medical records.

In 2000, the "personal medical home" envisioned by the American Academy of Family Physicians (AAFP) expanded the medical home concept to encompass patients of all ages. Beyond the basic tenets of primary care (ie, care that is accessible, continuous, comprehensive, coordinated, family-centered, and community-centered), the expanded

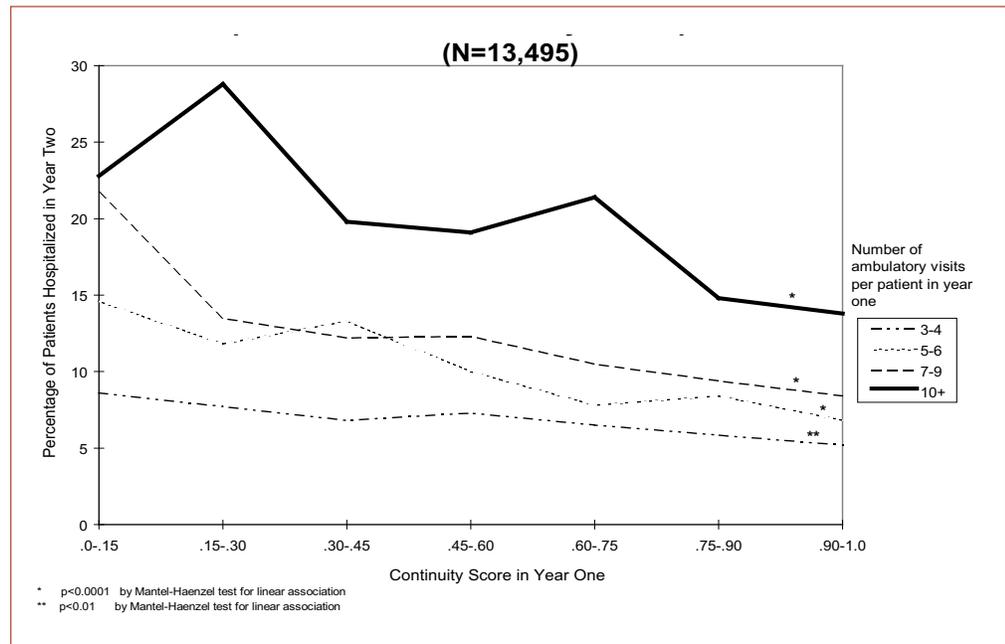
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medical home concept included enhanced chronic disease management, a team approach to care, enhanced patient access, and the use of information technology to support optimal care.

In 2002, the AAP broadened its definition, adopting characteristics similar to those included by the AAFP. Finally, the American College of Physicians (ACP) and other internal medicine organizations espoused the concept of the “advanced medical home” using a very similar definition.

In 2007, 4 major primary care organizations - the AAFP, AAP, ACP, and the American Osteopathic Association - came together to form the “joint principles of the patient-centered medical home.”<sup>11</sup>

**Figure 2. Impact of Provider Continuity on Hospitalization**



Gill JM, Mainous AG III. The role of provider continuity in preventing hospitalizations: Archives of Family Medicine, 1998; 7:352-357. Reprinted with permission.

### The 7 core features of the PCMH are:

- 1. Personal Physician:** Each patient has an ongoing relationship with a personal physician who is trained to provide first contact, continuous, and comprehensive care.
- 2. Physician-Directed Medical Practice:** The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
- 3. Whole Person Orientation:** The personal physician is responsible for all of the patient’s health care needs, either by providing direct care or by arranging appropriate care with other qualified professionals.
- 4. Care Coordination and/or Integration:** The personal physician coordinates care across all elements of the complex health care system (eg, subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (eg, family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange, and other means.

- 5. Quality and Safety:** These hallmarks of PCMH are exemplified by the care planning process, evidence-based medicine, accountability, performance measurement, and mutual participation in decision making.
- 6. Enhanced Access:** Enhanced access to care is available through systems such as open scheduling, expanded hours, and new options for communication between patients, their personal physicians, and practice staff.
- 7. Payment:** The health care system recognizes the added value provided to patients who have a PCMH via appropriately aligned reimbursement.

Unlike the current system, which rewards high-volume, overspecialized, and inefficient care, the PCMH is based on the premise that the best health care has a strong primary care foundation and strives for high quality and efficiency. Most importantly, it returns the focus to the patient and the ongoing relationship between the patient and his or her personal physician. Now gaining

widespread support from both physicians and health care policy experts, this model is viewed as a necessary policy change for the solvency and viability of our primary care system.<sup>12, 13</sup>

The PCMH concept has been embraced by payers and purchasers of health care. Large US employers and insurers have joined with primary care organizations to form the “Patient-Centered Primary Care Collaborative” (PCPCC), a cooperative effort to develop and advance the PCMH. The PCPCC believes that, if implemented, the PCMH will improve the health of patients and the viability of the health care delivery system.

### Payment Policy and the PCMH

Recognizing that current payments to US primary care clinicians are not commensurate with the services expected and provided, the PCPCC strongly supports the adoption of an improved primary care compensation model. The negative effects of the current model on income, work life, career satisfaction, and specialty choice are widely recognized in the literature.<sup>14</sup>

*(continued on page 3)*

Fixing the primary care reimbursement system is seen as a crucial component of primary care reform. The PCPCC and other organizations support a “hybrid payment model,” which would combine payments for face-to-face encounters with additional monthly payments for the medical home and incentive payments based on measures of quality of care, patient experiences, or shared savings. A schematic of this hybrid payment model is shown in Figure 3.

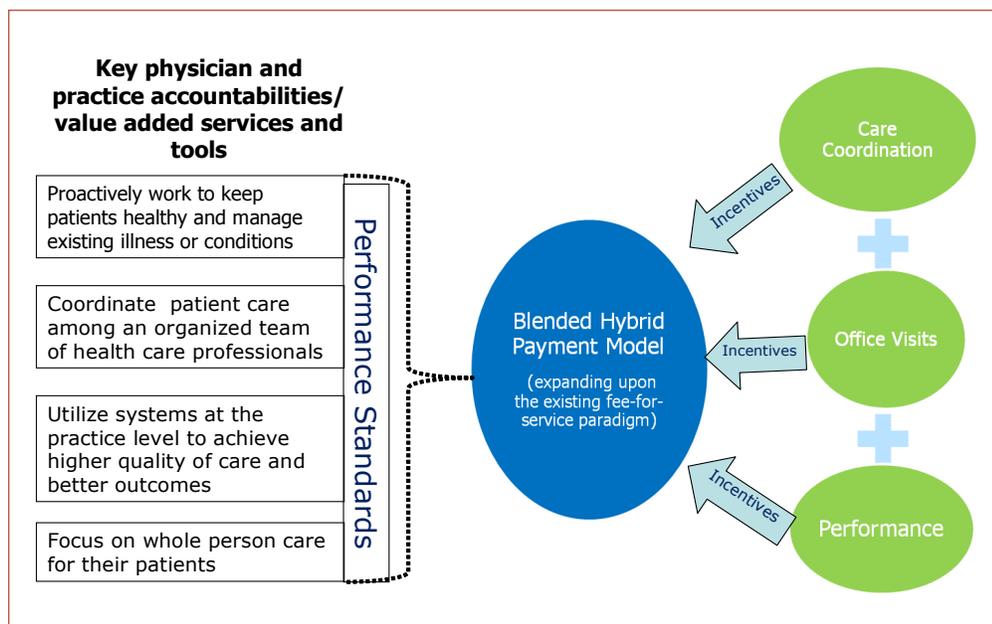
### PCMH Pilot Projects

The PCMH model is being tested widely across the country; 44 of 50 states have PCMH projects in process, and others have projects in the planning phases.<sup>15</sup> Many of these pilots already have shown significant benefits of the PCMH.

One of the earliest PCMH projects is Community Care of North Carolina (CCNC), a statewide Medicaid project that provides primary care as well as enhanced reimbursement for and access to community care coordinators.<sup>16</sup> CCNC has demonstrated improved quality of care for asthma, diabetes, and other chronic conditions. CCNC also has demonstrated significant cost savings. For example, a study shows that, in 2004, there was an estimated \$125 million annual net savings after paying for PCMH investments.<sup>16</sup> Most of the savings came from reduced costs for inpatient hospitalizations, emergency department visits, and hospital outpatient encounters. Pharmacy costs actually increased, which is consistent with the notion that the PCMH leads to better chronic disease management.

The Colorado Department of Health Care Policy and Financing also implemented a PCMH program for Medicaid enrollees – specifically for low-income children enrolled in the state’s Medicaid program and the State Children’s Health Insurance Program. Participating primary care practices were required to have 24/7 access as well as convenient appointment

**Figure 3. Primary Care Payment (PCPCC Model)**



Source: Rogers E. All eyes on the patient centered medical home. Presented at the Patient-Centered Primary Care Collaborative Annual Summit, October 22, 2009; Washington, DC. PCPCC, Patient-Centered Primary Care Collaborative.

scheduling and care coordination services. These practices were eligible for extra pay-for-performance payments. As of March 2009, a total of 150,000 children were enrolled in 97 different Colorado PCMH community-based practices involving 310 physicians.<sup>17</sup> This Colorado PCMH pilot led to lower costs; specifically, median annual costs were \$785 for PCMH children compared with \$1000 for controls. These cost savings were even greater for children with chronic conditions: \$2275 vs. \$3404 per year.

Early PCMH pilots also have been initiated by private insurers, most commonly Blue Cross Blue Shield (BCBS) plans. The largest of these is in Michigan, which includes 1.7 million patients of 6500 physicians in over 2000 practices.<sup>18</sup> The program includes consultation to help offices transform their practices, and reimbursement includes both up-front funding and enhanced fee-for-service payments. BCBS has initiated pilots in other states including Maryland, North Carolina, and Tennessee.

Many of the early PCMH pilot projects have been conducted in large integrated health care systems. One pilot that has received a great deal of press is Group Health Cooperative Puget Sound (an affiliate of Kaiser Permanente). This innovative program reduced physician panels by 25%, lengthened visits by 50%, added telephone and e-mail visits, and increased the number of staff available to conduct patient outreach and coordination. The project resulted in improved quality of care across multiple HEDIS (Healthcare Effectiveness Data and Information Set) measures, as well as improved patient and provider satisfaction.<sup>19</sup>

The project also resulted in a 29% reduction in emergency department visits and an 11% reduction in avoidable hospitalizations.<sup>19</sup> Similar levels of cost savings have been demonstrated by other pilots conducted by large integrated health systems such as Geisinger.<sup>20</sup>

Although successful pilots have been conducted in large integrated health systems, the majority of primary care practices in the United States are small

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independent practices.<sup>21</sup> In order for small practices to implement the PCMH model successfully, it must be embraced by payers other than Medicaid and large single payers (eg, BCBS). Specifically, we need multipayer projects that include large numbers of small independent practices as well as large practices and practices associated with health care systems.

One of the largest projects of this type is Pennsylvania's "Chronic Care Initiative" project, a collection of 6 different projects in 6 regions of the state. The first of these, implemented in Southeastern Pennsylvania (including Philadelphia), comprises all of the major private insurers as well as the Medicaid managed care plans. These insurers share in making enhanced payments to participating providers based on their respective scores on the National Committee for Quality Assurance's Physician Practice Connections - Patient-Centered Medical Home tool.<sup>22</sup> The Southeastern project included over 200,000 patients of over 200 physicians in its first phase, and already is planning a second phase. Some statewide multipayer projects have been implemented (eg, Vermont, Rhode Island) and others are being planned (eg, Maryland, Delaware). Because statewide multipayer projects are more recent, data are not yet available regarding their impact on quality, utilization, and cost.

### Conclusions

Complete results are not yet available; however, there is accumulating evidence that the PCMH is a promising method to improve quality while reducing the cost of health care in the United States. The future of successful health care reform depends on changing the system to one

that is based on primary care. This will require an increased investment in primary care. Although primary care currently accounts for only 5% to 6% of US health care spending, experts estimate that an efficient system will require spending at least 10% to 12% on primary care.<sup>23</sup>

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