



## How Is a Shortage of Primary Care Physicians Affecting the Quality and Cost of Medical Care?

## Introduction

In January 2006, the American College of Physicians warned that primary care, the backbone of the nation's health care system, was on the verge of collapse (1). ACP noted that very few young physicians were going into primary care and many of those already in practice were leaving, at a time when the demand for primary care services would be expected to increase due to an aging population with more chronic disease. In that paper, and in several other position papers published over the subsequent 2.5 years, ACP proposed a number of policies to halt and reverse the decline in the numbers of physicians choosing primary care careers. (2,3,4) ACP's recommendations include: creating pathways to eliminate student debt for physicians choosing primary care careers; reforming dysfunctional payment policies to increase payments to primary care physicians linked to accountability for improved outcomes; and designing, implementing and evaluating new models of primary care, such as the Patient Centered Medical Home.

Since then, and notwithstanding a heightened interest and concern expressed by many physicians, policymakers and other stakeholders about the future of primary care, *the United States has yet to implement comprehensive strategies to recognize, support, and enhance primary care to the degree necessary to reverse a worsening primary care shortage.* With each passing year, the gap between the need for primary care, and the numbers of physicians in primary care specialties and practices, will continue to grow. A shortage of primary care physicians will have huge, adverse implications for access, quality, and cost of care in the United States.

The hallmarks of primary care medicine--first contact care, continuity of care, comprehensive care, and coordinated care--are going to be increasingly necessary in taking care of an aging population with growing incidence of chronic disease, and have proven to achieve improved outcomes and cost savings. Without primary care, the health care system will become increasingly fragmented and inefficient, leading to poorer quality care at higher costs.

With health care reform taking a central role in the 2008 presidential and congressional elections, it is imperative that the new president and Congress make a commitment to implementing federal policies to facilitate a sufficient supply of primary care physicians. Otherwise, policies designed to expand access to insurance coverage, although essential, will *not* by themselves achieve the intended result of assuring that all Americans have access to high-quality, affordable care. Moreover, the cost of providing coverage to more than 46 million uninsured Americans will be much higher--and the outcomes of care much poorer--if expansion of coverage is accomplished without also concurrently expanding the primary care workforce.

ACP believes that policymakers are more likely to take the steps necessary to assure a sufficient primary care workforce if they are aware of the research on the importance of primary care to a high-performing health care system. To this end, this white paper provides an overview of current trends in the primary care physician workforce, the importance and value of primary care, and the growing demand for primary care services in the United States.

Twenty years of research, reviewed in this paper, documents the value of primary care. An annotated bibliography based on a literature review documents the evidence to support the critical importance of primary care in providing patients with better outcomes at lower cost, and the urgency of the need to prevent shortages of primary care physicians. It demonstrates that primary care physicians deliver high-quality care, reduce mortality, provide continuity of care, and reduce health care costs. Results of international comparisons are also provided. Overall, the evidence described in this paper support the following findings:



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- Absent changes in policies to make primary care more attractive and rewarding to new physicians and to sustain those already in practice, the supply of primary care physicians will fall behind increased patient demand, resulting in a shortfall of tens of thousand of primary care physicians over the next decade.
- The availability of primary care is positively and consistently associated with improved outcomes, reduced mortality, lower utilization of health care resources, and lower overall costs of care.
- Consequently, a shortage of primary care physicians will result in poorer health outcomes and more premature and preventable deaths for millions of Americans, and overall higher costs of care.

In addition to this white paper, ACP is developing a new policy paper to provide a comprehensive set of recommendations to assure that the supply of primary care physicians is sufficient to meet current and future needs. Later in 2009, ACP will release a position paper that will make recommendations on how primary care itself needs to change to meet the needs of an aging population with more chronic diseases<sup>1</sup>.

Although the focus of these papers is on the importance of primary care physicians, ACP recognizes and respects the roles of other health professionals and clinicians, including independent nurse practitioners and physicians assistants, in meeting the United States' primary care needs in a collaborative and team-based manner that recognizes each profession's contributions to patient care. ACP is currently engaged in discussions with the nursing profession on the development of policies that support and recognize the contributions of both nurses and primary care physicians. ACP had previously endorsed legislation enacted by Congress to address the nursing profession shortage.



## Summary of Evidence

### ***Summary of the Evidence That Demand for Primary Care Will Exceed Supply***

The current method of health care delivery in the United States, which emphasizes episodic treatment for acute care through private health insurance and governmental programs, is not optimally meeting the health care needs of patients with chronic diseases. Primary care physicians are at the forefront of managing chronic diseases, providing comprehensive care and coordinated long-term care, and the demand for such care is growing. Primary care physicians also focus on primary prevention--avoiding the chronic diseases that then require costly management.

The U.S. population is expected to increase by 18%, to 349 million, between 2005 and 2025. Within the next decade, the baby boomers will begin to be eligible for Medicare. By the year 2030, one fifth of Americans will be above the age of 65, with an increasing proportion above age 85. The population age 85 and over will increase 50% from 2000 to 2010. (5)

This rapid growth in population and increased proportion of elderly people is expected to raise the number of ambulatory care visits by 29% by 2025. The increased child population is estimated to increase patient visits by 13%. (6)

The number of patients with chronic diseases, those who benefit most from the coordination of care and continuity of care that primary care physicians provide, is also increasing. 45% of the U.S. population has a chronic medical condition and about half of these, 60 million people, have multiple chronic conditions. (5) For the Medicare program, 83% of beneficiaries have one or more chronic conditions and 23% have five or more chronic conditions. (7) It is important to note that the 23% of beneficiaries with five or more chronic conditions account for two-thirds of all Medicare spending.

By 2015, an estimated 150 million Americans will have at least one chronic condition. (5) Among nonelderly adults, the number who report having one or more of seven major chronic conditions has increased from 28% in 1997 to 31% (or 58 million) in 2006. (8)

While the demand for primary care is increasing, there has been a dramatic decline in the number of graduating medical students entering primary care. (9-11)

Factors affecting the supply of primary care physicians include excessive administrative hassles, high patient loads, and declining revenue coupled with the increased cost of providing care. As a result, many primary care physicians are choosing to retire early. (10) These factors, along with increased medical school tuition rates, high levels of indebtedness, and excessive workloads, have dissuaded many medical students from pursuing careers in general internal medicine and family practice. (12)



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From 1997 to 2005, the number of US medical graduates entering family medicine residencies dropped by 50%. (12) In 2007, only 23% of third-year internal medicine residents, planned to practice general internal medicine compared to 54% in 1998. Among first-year internal medicine residents, only 14% indicated that they planned to pursue careers in general medicine. (13) Even more disheartening, a 2007 study of fourth-year medical students' career decision making revealed that only 2% of students intended to pursue careers in general internal medicine. (14)

An increasing proportion of new primary care physicians are women, who tend to work fewer hours, further reducing the effective workforce. By 2025, half of all primary care physicians will be female. (6)

Approximately 21% of physicians who were board-certified in the early 1990s have left internal medicine, compared with a 5% departure rate for internal medicine subspecialists. (11)

A 2008 study predicted that the U.S. will experience a shortage of 35,000–44,000 adult primary care physicians by 2025. The study also predicted that population growth and aging will increase family physicians' and general internists' workloads by 29% between 2005 and 2025. Further, greater use of nurse practitioners and physicians assistants and increased primary care by specialists are not expected to make enough of an impact on this shortfall. (6)

### ***Summary of the Evidence on the Value of Care Provided by Primary Care Physicians***

Evidence from the available medical and scientific literature suggests that:

When compared with other developed countries, the United States ranked lowest in its primary care functions and lowest in health care outcomes, yet highest in health care spending. (15-17)

Primary care has the potential to reduce costs while still maintaining quality. (18-22)

States with higher ratios of primary care physicians to population have better health outcomes, including decreased mortality from cancer, heart disease, or stroke. (23, 24)

Individuals living in states with a higher ratio of primary care physicians to population are more likely to report good health than those living in states with a lower ratio. (25)

The supply of primary care physicians is also associated with an increase in life span. (26, 27) An increase of just one primary care physician is associated with 1.44 fewer premature deaths per 10,000 persons. (28)



## How Is a Shortage of Primary Care Physicians Affecting the Quality and Cost of Medical Care?

Primary care physicians have been shown to deliver care similar in quality to that of specialists for certain conditions, such as diabetes and hypertension, often while using fewer resources, (14, 29, 30) although specialists often are the best qualified to provide care within their areas of training and expertise for patients with more advanced and complex clinical conditions. Cooperation between specialists and primary care physicians is of utmost importance in ensuring optimal care of patients. Specialty care is more effective when the patient also has an ongoing relationship with a primary care physician. Primary care physicians are adept at ensuring that patients get the right care, including care from specialists. (31)

Primary care physicians have also been shown to provide better preventive care than specialists, reflecting their ability to better manage the whole health of patients. (32-34)

The preventive care that primary care physicians provide can help to reduce hospitalization rates. (35-39) In 2000, an estimated 5 million admissions to U.S. hospitals, with a resulting cost of more than \$26.5 billion, may have been preventable with high-quality primary and preventive care treatment. Assuming an average cost of \$5,300 per hospital admission, a 5% decrease in the rate of potentially avoidable hospitalizations alone could reduce inpatient costs by more than \$1.3 billion. (18)

Hospital admission rates for five of 16 ambulatory care-sensitive conditions "for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease," increased between 1994 and 2003, suggesting worsening ambulatory care access or quality for those conditions.(40, 41) Studies of certain ambulatory care-sensitive conditions have shown that hospitalization rates and expenditures are higher in areas with fewer primary care physicians and limited access to primary care. (35)

An increase of 1 primary care physician per 10,000 population in a state was associated with a rise in that state's quality rank by more than 10 places and a reduction in overall spending by \$684 per Medicare beneficiary. (42) By comparison, an increase of 1 specialist per 10,000 population was estimated to result in a drop in overall quality rank of nearly 9 places and increase overall spending by \$526 per Medicare beneficiary.

The following annotated literature review provides a more detailed and comprehensive description of the evidence on the impact of primary care on quality and cost.