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Primary Care: Current Problems And Proposed Solutions

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ABSTRACT In 2005, approximately 400,000 people provided primary medical care in the United States. About 300,000 were physicians, and another 100,000 were nurse practitioners and physician assistants. Yet primary care faces a growing crisis, in part because increasing numbers of U.S. medical graduates are avoiding careers in adult primary care. Sixty-five million Americans live in what are officially deemed primary care shortage areas, and adults throughout the United States face difficulty obtaining prompt access to primary care. A variety of strategies are being tried to improve primary care access, even without a large increase in the primary care workforce.

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The 2009–10 health reform effort has addressed two interrelated crises: declining health insurance coverage, and high and rising costs. A third crisis also has captured the attention of policy makers: the decline of primary care. If the primary care foundation of the health care system is not strengthened, true access and cost containment may be impossible.[1]

This paper reviews the state of primary care in the United States, discusses the projected shortage in the primary care practitioner workforce, and concludes by suggesting solutions to the growing problem of inadequate patient access to primary care. Because the decline in the workforce will take many years to reverse, we emphasize proposals that may improve access in the short term.

Features Of Primary Care

Barbara Starfield, a leading authority on primary care, describes four pillars of primary care practice: first-contact care; continuity of care over time; comprehensiveness, or concern for the entire patient rather than one organ system; and coordination with other parts of the health system.[2] There are also other attributes that patients, insurers, and policy makers expect primary care practices to provide. These include computerization of information; care that is measured regularly to ensure high quality; practice systems that focus attention on chronic and preventive care; concern for the entire population of patients; and a patient-centered culture that puts the needs of patients above all else.

The Starfield pillars plus the new expectations for primary care have been conceptualized as the "patient-centered medical home." Primary care practices are being challenged to implement the medical home in return for receiving enhanced payment.[3]

Concerns are mounting that without more primary care practitioners and serious practice reorganization, most patients will be unable to obtain the services of a true medical home. Many primary care physicians are overwhelmed by crammed schedules, inefficient work environments, and unrewarding administrative tasks,[4] and the quality of physician-patient interactions in primary care has been declining.[5]

What's more, primary care has become increasingly complex. Family physicians, who make up a sizable portion of the primary care workforce, address an average of three patient problems for every brief visit, with the average

number of problems increasing to 3.8 for elderly patients and 4.6 for patients with diabetes.[6]

Landscape Of Primary Care Practice

Whereas general practitioners are the primary care physicians in many nations, in the United States primary care responsibilities belong to several categories of practitioners: family physicians, general internists, geriatricians, general pediatricians, nurse practitioners, and physician assistants. We use the term *primary care practitioners* to describe this workforce. Nurses, pharmacists, health educators, medical assistants, and other health workers add to the primary care workforce; this paper mainly focuses on primary care practitioners.

Primary care is delivered in a variety of settings, including small or medium-size private practices, hospital outpatient departments, community health centers, and integrated care systems. The great majority of primary care practitioners practice in small settings.[7] Only 7 percent work in organizations of eleven physicians or more (Exhibit 1). Almost half of primary care physicians see their patients in offices of one or two physicians. This reveals that although multihospital systems and large insurance firms show the corporate side of health care, primary care retains many elements of a cottage industry. In some parts of the country, small private practices have joined loose networks called independent practice associations, but these networks rarely alter the cottage-industry nature of how their physicians actually practice.

Primary care clinics in hospital outpatient departments are usually located in large urban teaching hospitals. These clinics often juggle sometimes discordant missions: teaching, research, and service. Community health centers are public or nonprofit organizations serving low-income and minority populations. In integrated care systems such as Kaiser Permanente and the Geisinger Health System, primary, specialty, emergency, ancillary, and (often) hospital care work under a single organizational roof.

Primary care private practices are usually paid on a fee-for-service basis, with capitation payment surviving in only a few states such as California. Primary care physicians are paid far less for cognitive services—for example, providing medications and lifestyle counseling to patients with diabetes—than specialists are paid for procedural and imaging services.[8] In addition, primary care practices are not paid for care coordination and other services performed outside the patient visit. These realities have led to major discussions about the need for significant physician payment reform.

The landscape of primary care practice is changing. The numbers of solo and two-physician practices, and practices owned by physicians, are slowly declining, although more so for specialists than for primary care physicians.[9] Hospitals are beginning to buy up primary care practices. Physicians who are now completing their residency training, hoping to avoid financial and administrative worries, prefer to join larger organizations. These choices of young physicians may redraw the primary care landscape, shifting the locus of most primary care from small practices to larger, more integrated organizations.

Primary Care Practitioner Workforce

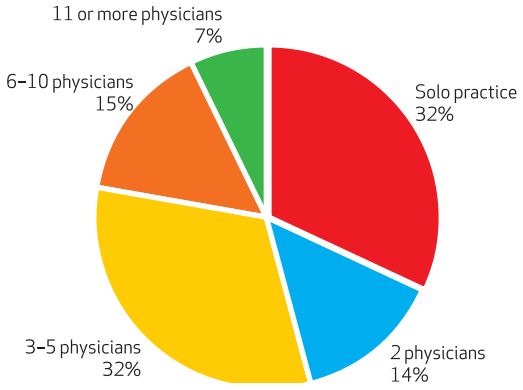
The number of physicians per capita grew rapidly at the end of the twentieth century, from 115 active patient care physicians per 100,000 population in 1965 to 190 in 1992. Almost the entire increase was among specialists. Although the primary care physician-to-population ratio grew by 14 percent, the specialist-to-population ratio ballooned by 120 percent.[10]

In the mid-1990s health maintenance organizations (HMOs) based their care structure on the primary care gatekeeper, and primary care saw a brief resurgence. During the 1990s the supply of primary care physicians increased from 67 to 90 per 100,000 population.[11] The percentage of graduating U.S. medical students planning primary care careers grew from 15 percent in 1992 to 40 percent in 1997.

However, the primary care boom was short-lived. By 1997 HMOs and the primary care gatekeeper model were in decline. U.S. medical students soured on primary care careers. Although

EXHIBIT 1

Distribution Of Primary Care Physicians, By Practice Size (Number Of Physicians)



SOURCE Hing E. Unpublished results from the 2006 National Ambulatory Medical Care Survey; National Center for Health Statistics.

clinical responsibilities grew, primary care incomes declined in real-dollar terms.[12] The wide and growing income gap between primary care physicians and specialists, coupled with the challenging work life of primary care physicians, led most U.S. medical graduates to avoid adult primary care careers.[13] In a 2007 survey of fourth-year students at eleven U.S. medical schools, only 7 percent planned careers in adult primary care.[14] The American College of Physicians warned that "primary care, the backbone of the nation's health care system, is at grave risk of collapse."[15]

Even though 56 percent of visits to physicians' offices are for primary care, only 37 percent (287,000) of physicians practice primary care medicine.[16] In 2005 an estimated 83,000 nurse practitioners (NPs) and 23,000 physician assistants (PAs) worked in primary care.[11] It can be debated whether the current primary care practitioner-to-population ratio is adequate, but two things are unquestioned: Adult patients are having difficulty gaining timely access to primary care, and a serious shortage of primary care practitioners is inevitable in the near future.

Difficulties Accessing Primary Care

The 2008 Medicare Payment Advisory Commission (MedPAC) beneficiary survey found that 28 percent of beneficiaries without a primary care physician reported a problem finding such a physician. This proportion represented a 17 percent increase from 2006. The number of beneficiaries reporting a problem finding a new specialist decreased from 18 percent in 2006 to 11 percent in 2008. Twenty-two percent of Medicare beneficiaries and 31 percent of privately insured patients had an unwanted delay in obtaining an appointment for routine care in 2008.[17]

Four-fifths of adults surveyed in 2006 have a usual doctor or source of care. However, only 27 percent of them could easily contact their physician over the telephone, obtain care or medical advice after hours, and experience timely office visits.[18]

The 2006 health reform in Massachusetts expanded health insurance coverage to most state residents. However, the Massachusetts primary care workforce is unable to meet this new demand for services. The average wait time for a new patient to obtain an appointment to see an internist was thirty-one days in 2008, up from seventeen days in 2005.[19] The Massachusetts experience has shown that expanding access to health insurance without expanding access to care can turn a positive development into widespread patient and practitioner frustration.[20]

Poor reimbursement rates and rising operating costs have forced a growing number of physicians to accept fewer Medicare and Medicaid patients. In a 2004 national survey of primary care physicians, 58 percent were accepting all new Medicare patients; 20 percent accepted new patients but restricted acceptance of Medicare beneficiaries; and 22 percent were not accepting any new patients.[21] Surveys conducted in several states (Exhibit 2) demonstrated a trend toward fewer primary care physicians' accepting new patients.[22–25] A few practices have stopped accepting any insurance and have converted into concierge practices requiring patients to pay cash.

A 2006 California survey found one of the principal causes of emergency department use to be lack of access to primary care. Forty-six percent of patient-respondents believed that the problem bringing them to the emergency department could have been handled in primary care. Of this 46 percent, two-thirds would have seen a primary care practitioner instead of visiting the emergency department had they been able to obtain an appointment.[26]

Among recent emergency department users polled, 42 percent of Medicare beneficiaries found it difficult or impossible to access routine care without going to the emergency department.[26] People with no usual source of care, especially those with low incomes, are more likely than others to visit an emergency department. Twenty-two percent of ambulatory care visits in 2004 were to an emergency department for adults with low income and no usual source of care, compared with 3 percent for nonpoor patients with a usual source of care.[27]

The Future Primary Care Workforce

The supply of primary care practitioners for the care of children is expected to be adequate over the next two decades. However, population growth and aging are estimated to increase the workload of adult primary care practitioners by 29 percent from 2005 to 2025, and the number of adult primary care practitioners is estimated to grow by only 2–7 percent. These projections are expected to lead to estimated shortages of 35,000–44,000 adult primary care practitioners. Figures on the numbers of NPs and PAs graduating from training programs each year, and the proportion of those entering primary care rather than specialty careers, reveal that their numbers will not be sufficient to close the projected gap.[28]

Adding primary care physicians, NPs, and PAs together, the ratio of primary care practitioners to population is expected to fall 9 percent from 2005 to 2020.[29] International medical gradu-

EXHIBIT 2

Primary Care Physicians Accepting New Patients, Selected States

Massachusetts internists accepting any new patients	2006: 69%	2008: 52%
Massachusetts family physicians accepting any new patients	2006: 75%	2008: 65%
Texas family physicians accepting new Medicare patients	2002: 63%	2006: 51%
Texas family physicians accepting new Medicaid patients	2004: 41%	2006: 25%
Vermont internists accepting new Medicare patients	2002: 70%	2006: 58%
Vermont internists accepting new Medicaid patients	2002: 62%	2006: 42%

SOURCES Massachusetts: Note 19 in text. Texas: Notes 22 and 23 in text. Vermont: Notes 24 and 25 in text.

ates, who make up about 25 percent of the primary care physician workforce, have mitigated but not solved this crisis.[30]

Maldistribution Of Primary Care Practitioners

The ratio of primary care physicians to population in urban areas is 100 per 100,000 population. In rural areas, it is less than half that rate, 46 per 100,000.[31] Put another way, 21 percent of the U.S. population lives in rural areas, but only 10 percent of physicians practice in those areas. Similar disparities exist for economically disadvantaged urban areas.

The federal Health Resources and Services Administration (HRSA) designates localities with ratios of population to primary care practitioners greater than 2000:1 as Primary Care Health Professional Shortage Areas. In September 2009, sixty-five million people lived in these shortage areas. More than 16,000 additional primary care practitioners are needed to meet the primary care demand in underserved areas.[32]

This large population is considered medically disenfranchised and consisting of "people with no or inadequate access to a primary care physician due to a local shortage of such physicians."[33] In communities with poor access to primary care, the population—which has high proportions of uninsured, poor, and minority people—has higher death and disease rates and greater health disparities than in communities where access to primary care is better.[34] Communities with worse primary care access have higher rates of emergency department visits and hospitalizations as a result. From 1998 to 2006, the number of counties with medically disenfranchised populations increased by 52 percent.[34]

Role Of Government In Primary Care

The federal government owns or sponsors a number of primary care practice sites, including community health centers, facilities for military personnel and veterans, prisons, and Indian Health Service clinics. State governments are less involved in direct provision of primary care, although some local governments do so through public hospital and clinic systems.

Community health centers represent a growing federal response to several interrelated primary care access problems. Tens of millions of people lack adequate health insurance or are Medicaid recipients unable to gain access to private sources of care. There is also a geographic maldistribution of primary care practitioners. The federal government designates many community health centers as federally qualified health centers if those centers implement certain requirements, the most important of which is to care for all patients without regard to their ability to pay.

There are 1,200 community health centers in 6,000 urban and rural sites, serving an estimated seventeen million people. Seventy-one percent of community health center patients are at or below the federal poverty level. More than 60 percent are minorities, 40 percent are uninsured, and 35 percent depend on Medicaid or the Children's Health Insurance Program, which provides coverage for previously uninsured low-income children.[33]

Community health centers have been highly successful in improving primary care access. For people at or below the federal poverty level, 16 percent of community health center patients used the emergency department in 2004, compared with 24 percent of poor patients of other providers. Fourteen percent of Medicaid recipients who used community health centers had an emergency department visit in 2004, compared with 21 percent for Medicaid patients of other providers.[33]

Federal funds for federally qualified health centers were expanded in 2001 and again in 2009. The National Association of Community Health Centers' goal is to serve thirty million people by 2015. A major barrier to achieving

that goal is difficulty recruiting primary care practitioners.[32]

Confronting The Access Problem

The difficulties patients face gaining timely access to primary care are caused by multiple factors, related to primary care practitioner shortages, geographic maldistribution, and organizational issues within primary care practices. These factors are listed here, along with suggested policy reforms.

PANEL SIZE Primary care practitioner practices with a panel of 2,000 or more patients per full-time practitioner are unable to provide accessible high-quality care to all of their patients. A primary care physician with an average panel of 2,000 patients would spend 17.4 hours per day providing recommended acute, chronic, and preventive care.[35]

If a reasonable work life for a primary care practitioner is eight hours per weekday in direct patient contact—not including paperwork and other responsibilities—then the appropriate panel size would be considerably smaller than 2,000. Given current fee schedules, primary care practices would fail financially with such small patient panels. Moreover, if practitioners reduced panel sizes, many people would be unable to find a practice accepting new patients.

Two levels of solutions, at the macro- and micro-system levels, could address the panel-size problem. The macro-level solution would, first, attract more medical students into primary care by narrowing the primary care–specialty income gap; second, improve primary care physicians' work lives; and third, reallocate Medicare graduate medical education funds toward primary care training.[36] NP training programs could also be expanded.

The micro-level solution would be to keep panel sizes the same and to create primary care teams in which tasks not requiring high-level medical skills would be delegated to other team members.

CAPACITY The number of hours per week that the primary care practitioner sees patients in the office and the number of patients scheduled per hour are determinants of the practitioner's capacity to handle patient visits. The percentage of physicians practicing part time increased from 13 percent in 2005 to 19 percent in 2007, thereby reducing capacity per physician.[37]

Many improvements can increase capacity. Some physicians routinely make monthly follow-up appointments for their patients. However, postponing or prolonging the return-visit interval does not compromise quality,[38] and doing so can greatly increase the capacity to see more patients. The delegation of tasks to nonprofessional team members and the use of phone and e-mail visits can also increase capacity.

GEOGRAPHIC MALDISTRIBUTION In Health Professional Shortage Areas, primary care access is in critical condition. Four policies could mitigate the situation. First, for thirty years the National Health Service Corps—which provides scholarships and debt forgiveness for health professional school education—has brought many primary care physicians to underserved areas. However, the corps is underfunded. In 2008 it provided only 76 scholarships for 950 applicants and 867 loan repayment awards to 2,713 applicants.[39] A major increase in funding could ameliorate the lack of primary care in underserved areas.

Second, medical schools could accept more students from rural areas, since students from rural towns are four times more likely to practice in rural areas than those from urban counties.[40]

Third, the number of minority practitioners could be increased. Only 9 percent of U.S. physicians are from underrepresented minorities, even though these minorities constitute 25 percent of the adult U.S. population.[41] Increasing their numbers would be an effective strategy, since practitioners from underrepresented minorities are more likely than other practitioners to practice in minority communities.[41]

Fourth, physicians exposed to programs receiving federal grants for primary care training under Title VII of the Public Health Service Act are more likely than other physicians to work in underserved areas. Major increases in Title VII funding would add to the number of primary care practitioners going to underserved areas.[42]

INSURANCE-LINKED REFUSAL OF PATIENTS Most primary care practices restrict the patients they accept based on insurance. Medicaid patients have a far more difficult time finding a primary care practitioner than privately insured patients do. In some areas, depending on whether local Medicare reimbursement levels are above or below those of private insurers, practices limit Medicare patients. Standardizing reimbursement levels among public and private insurers would mitigate this problem.

AFTER-HOURS ACCESS Many patients who call their primary care practice during evenings or weekends are unable to obtain care. In a 2007 survey, only 28 percent of adults reported that their regular medical practice had evening or weekend hours.[43] Medicaid patients of primary care practices with more than twelve evening hours per week used the emergency department 20 percent less than those cared for in practices with no evening hours.[44]

17.4

Hours Per Day

A primary care physician with a panel of 2,000 patients would spend 17.4 hours per day providing recommended care.

If primary care is to reduce inappropriate and costly emergency department visits and hospital admissions, after-hours services are necessary. Practices should be paid for such services or should share in the cost savings these services create.

SAME-DAY SCHEDULING Many patients call their primary care practice for an appointment only to find that the next available opening is three weeks away. Hundreds of practices have introduced open-access, or same-day, scheduling, allowing any patient to obtain a prompt appointment. Not all practices implementing open access have succeeded.[45] To sustain this innovation, the demand for appointments needs to be in balance with the practice's capacity to provide appointment slots.

E-MAIL AND TELEPHONE VISITS Many chronic and preventive care issues can be handled by brief telephone or e-mail encounters, if this is medically appropriate and desired by patients. This in turn opens up face-to-face time for patients needing traditional visits.[46]

PRIMARY CARE TEAMS A lone primary care practitioner with a patient panel greater than 1,000 has a difficult time providing all recommended care to all patients. Yet much work performed by primary care practitioners does not require professional-level training and could be delegated to nonprofessional team members.[47]

For example, many chronic and preventive care tasks are clearly defined by clinical practice guidelines and have become routine. Among these are laboratory tests for patients with diabetes; mammograms for women over age fifty (mammograms for women ages 40–50 are not routine and require a discussion); and many immunizations. Primary care practice staff, using electronic registries, can contact patients needing these services, thereby relieving primary care practitioners of the need to use visit time for these routine tasks.

Some organizations are training medical assistants—practice staff with only six months of training—to become panel managers, who regularly cull the registry and contact patients overdue for services.[48] Medical assistants can be trained as health coaches to counsel patients on lifestyle changes and medication adherence, working in two-person "teamlets" with primary care practitioners. In the case of at least one chronic condition—depression—trained medical assistants have been shown to improve the care of patients compared with care by physicians alone.[49,50]

Conclusion

The United States has a serious geographic maldistribution of primary care services and is entering an era of primary care workforce shortages. Improving access to primary care will require major macro-level system reform—in particular, increases in primary care reimbursement both to reduce the primary care–specialty income gap and to invest in primary care practice improvement. However, even with a primary care practitioner shortage, many micro-level system adjustments could improve patients' ability to obtain prompt primary care services. These could include adding evening and weekend hours, instituting open-access scheduling, increasing the return-visit interval, using e-visits and phone visits, and delegating important but routine functions to nonprofessional staff.

The primary care renewal policy agenda, then, is multifaceted. It is a critical element of any health reform aiming to expand insurance coverage while reducing costs. Coverage expansion and the resultant demand for primary care access presents an opportunity for policy makers to legislate substantial and long-term investments in the primary care infrastructure. ■

NOTES

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