Testimony of Richard A. Cooper, M.D.

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Before
The United States Senate Committee on Health, Education, Labor and Pensions

Hearing on
Delivery Reform: The Roles of Primary and Specialty Care
in Innovative New Delivery Models

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Mr. Chairman and Members of the Committee:

I very much appreciate the opportunity to provide testimony to the Committee as it undertakes this important inquiry into the critical role that physicians will play in a reformed health care system. It is a topic that I feel deeply about.

Overview. The problem that we are facing is that there are worsening shortages of physicians. I will say more about these shortages and about how physician practices are likely to evolve because of them, but it is important not to lose sight of the fundamental problem: too few physicians to serve the needs of the nation. Too few generalists and too few specialists. Too few physicians.

This problem will have to be addressed in two ways. The first is by expanding the capacity to train more physicians. Although difficult to accomplish, the ways to accomplish it are generally known. The second is more elusive. It is through innovative practice arrangements among physicians and between physicians, hospitals and nonphysician clinician (NPC) providers. There are infinite numbers of such arrangements, and infinite regional and local circumstances in which they will be carried out. Innovation is key. While some believe that the "true" way can be known and applied generally through practice incentives or otherwise, that approach is fraught with danger. Experiences can be shared, but practices cannot be shaped by widely-applied incentives or regulations. In health care, as in politics, everything is local.

These two lines of thinking come together when it is appreciated that no one has carried out health care planning in the context of physician shortages of the magnitude that are now developing. At times like this, it is best to work toward minimizing long-term shortages, make efforts to assure that disadvantaged populations do not bear the brunt of the problem, and sustain an atmosphere that is conducive to practice innovation.

Background. I come to this after almost 50 years as a physician. My early career was as an academic hematologist, first at Harvard and then at Penn. While at Penn, I also helped to found a Comprehensive Cancer Center, which I later directed. After almost 15 years there, I was drawn back to Milwaukee, the city of my birth, to serve as dean of the Medical College of Wisconsin. It was toward the end of that tour of duty that the Clinton Health Plan was in the making. I was attracted to these deliberations by the notion that there would be a vast surplus of physicians by Century's end.

In examining the way that the Bureau of Health Professions projected these surpluses, it quickly became apparent that outmoded census data had been used. When correct data from the Census Bureau's were substituted, a very different picture emerged. It was not one of mounting surpluses but of a "turn of the century bulge" in physician supply followed by increasing shortages as the new Century unfolded – which is what is happening now.

The view that shortages would develop was very unpopular at the time, but it has proven to be correct. Sadly, rather than beginning then to prepare for an expansion of medical education now, the consensus was to stop any further expansion of physician training by freezing the number of residency positions. That was accomplished in the Balanced Budget Act of 1997, which capped Medicare funding for graduate medical education (GME) at its 1996 level. And that is why we are here today.

Definition of the problem. As I stated at the outset, the nation is producing too few doctors for its current and future needs. As my colleagues and I forecasted a decade ago, economic and demographic trends, combined with insufficient training capacity, are leading to deepening shortages of physicians. But now there is a second part to the forecast. Because so much time has passed, a further deepening of physician shortages cannot be avoided. Regardless of how much effort is made to add training capacity now, it will not be possible to correct the problem soon enough or fully enough to avert still worse shortages over the next decade. And that makes your deliberations doubly important, for they concern not only the need for adequate numbers of physicians but the need for innovative models of practice in this coming era of physician shortages. This is uncharted territory. There is no time in the past when the US has had shortages of physicians of the magnitude that are now developing. Innovation is the operative word, both for expanding training capacity and structuring the practice of medicine.

The shortages that are now being experienced are not new. They began to appear 7-8 years ago, even earlier than we had anticipated. But they were limited to certain specialties, such as cardiology and urology, and because they were limited, they largely escaped public attention. However, they were noticed by national organizations. Following our initial projections a decade ago, the Council on Graduate Medical Education adopted a similar planning model and made similar projections, and these were confirmed by a series of follow-up reports from the Association of American Medical Colleges. With these projections and early evidence of shortages in many specialties and many communities, most major medical organizations called for expanding physician supply. They included the American Medical Association, the American Osteopathic Association, the Association of American Medical Colleges, the American Association of Colleges of Osteopathic Medicine and the Association of Academic Health Centers. More than twenty specialty societies and an equal number of state medical and hospital associations joined this chorus. Yet, it was largely ignored. However, now that the shortages have spread to engulf primary care physicians, whose care is sought by most patients, even when they are healthy, the secret is out. Everyone knows. We don't have enough physicians.

On past occasions when there was concern about too few primary care physicians, the strategy was to shift the balance of training from specialists to primary care. But this time the problem is not simply one of balance – it is global – there are too few physicians across specialties. Unlike the past, there's no "robbing Peter to pay Paul." The only solution is to train more physicians and allow them to distribute among the various specialties where they are needed.

The problem is further complicated by the fact that, although we need more physicians now, we really can't get any more for a decade or more. This is because, even with sufficient financial support, it will take several years to increase medical school output and expand residency training capacity, and then it will take four years to educate medical students and another three to six years for these graduates to undergo residency and fellowship training. And by then it will be 2020, and the nation will be coping with shortages far more severe than today.

Expanding medical education. The fact that future shortages are unavoidable is not a reason to do nothing. It is a reason to work doubly hard to minimize them. In response to that need, many medical schools have already begun to increase class size, and a small number of new schools are in various stages of development. The pace of both is commendable, but it is too slow and not enough, and without national support, it is unlikely to be sufficient. Medical schools need financial help in this endeavor.

But most of all, residency programs must be expanded. Medicare's caps on residency positions must be lifted, and support must be made available to assist existing training programs to expand and to help hospitals that are capable of starting new programs. And that is where Congress can help

Why is expanding graduate medical education so important? It is because, regardless of where physicians are schooled (US-MD schools, US-Osteopathic schools, US citizens trained abroad or foreign nationals trained abroad), physicians must receive residency training in the US in order to be licensed for practice in the US. This limitation does not hold for most other countries, which allow the entry of practicing physicians, albeit with some restrictions. However, in the US, GME is the portal to practice. It's a good portal, one that enhances the quality of care.

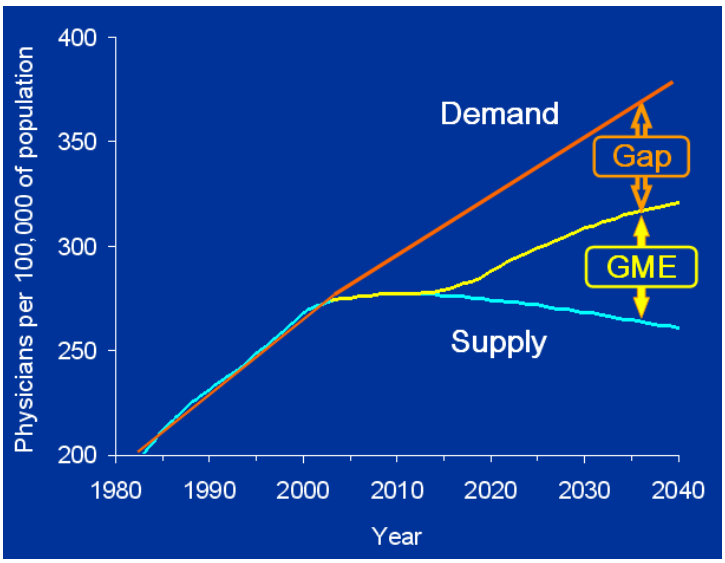
How many more physicians are needed? Estimating the future demand for physicians requires a consensus about the future dimensions of health care. Over the past several decades, health care spending has grown at an annual rate approximately 2% higher than the rate of GDP growth (which averaged 3%). The 2% differential was not because no more health care was desired, but because desire encountered downward pressure, and 2% became the equilibrium point. Even if downward pressure is greater in the future, it seems unlikely that health care spending would grow more slowly than the economy overall. It also is unlikely that its growth could exceed GDP growth by as much as 4%, double the historic level. So the range of predicted spending is rather narrow.

President Obama's announcement earlier this week concerning proposals by major health care providers to rein in the annual growth of health care spending is in line with projections of growth within 1-2% of GDP growth, a level that would cause health care's portion of GDP to reach 20% by 2020 or shortly thereafter.

Long-term trends also indicate that spending will not be the same everywhere -- more prosperous states spend more, not only on health care but on other social services. And they have better outcomes when their diverse sub-populations are taken into consideration. While it is difficult to predict the future, and there are extreme views in both directions, it seems prudent to make long-term plans for facilities and personnel based on these estimates.

Historically, as health care spending has grown, the supply of physicians has grown much slower, while other health care workers undertook important tasks. During the 1920s, physicians accounted for 25% of health care workers, but now account for fewer than 7%. This trend has been associated with new technical disciplines, a vast expansion of nursing and a progressive increase in the number of nonphysician clinicians (NPCs), principally nurse practitioners (NPs) and physician assistants (PAs), reflecting the greater complexity of the tasks that physicians now delegate or defer to others.

<u>What is possible</u>? The illustration below depicts the trends in physician supply and demand over the past several decades, expressed in per capita terms. It also shows how demand will change over the coming years, assuming a slowing of spending growth, as indicated above. And it shows that, if the rate of training is not increased appreciably, there will be as many as 200,000 too few by 2020, 20% of the projected demand, and larger shortages thereafter.



The illustration also shows what could happen if the number of entry-level residency positions were increased by 10,000 over the next decade, from approximately 25,000 to 35,000, a 40% increase. While such an increase is seemingly large, it is equal to the expansion of residencies that occurred in the 1960s and 70s, the last major effort to

expand supply. Such an expansion would clearly lead to meaningful increases in physician long-term. But, because of the long lead-times, little will occur until after 2020, and a gap between supply and projected demand equivalent to 100,000 physicians will continue well into the future.

Thus, there are two problems. A near-term shortage, about which we can do very little, and a long-term shortage, which we can work to ameliorate, recognizing that it will be impossible to correct completely. But it is essential that Congress act quickly to aid in that process. Helping medical schools is important, but increasing the number of residents trained annually is the key.

While there is a tendency to want to use the funding for residency training as a lever to influence specialty mix, it is difficult to anticipate the precise roles that physicians will serve 20 and 30 years hence, which is the time-frame during which current efforts to increase the supply will come to fruition. Therefore, it is hazardous to attempt detailed adjustments to the specialty mix of trainees. Physicians will have to be trained to deal with the changing knowledge base of medicine, and they will have to distribute in a manner that is consistent with medical care in that somewhat distant future.

Redefining physicians' roles. In 2002, we prophesized that "*shortages of physicians will force the medical profession to redefine itself in ever more narrow scientific and technological spheres while other disciplines evolve to fill important gaps.*" That transition is now occurring, as physicians gravitate to higher complexity services that only they can provide. Faced with deepening shortages, this trend seems certain to continue. The following scenarios describe ways that physicians are likely to distribute responsibility. Implicit in all of them is an interdependence among physicians and between physicians and NPC. But most important is innovation. The processes of restructuring physician practices will be a very fluid and will undoubtedly include characteristics that are not evident today. It would be a mistake to favor any particular form of organization.

Specialists will increasingly concentrate their efforts on technologically-advanced care and on the care of patients with major acute disorders and complex chronic illnesses, and, of course, on advanced diagnostic services. The degree of overlap among specialties has decreased over time, as each has evolved to encompass a special body of knowledge, and this seems certain to continue, which brings interdependence more sharply into focus. Many specialists who care for patients with chronic disease will organize their practices to serve as "principal physicians" for these patients, sharing the responsibility for general care and care coordination with NPCs within their own practices and with generalist physician colleagues. Relationships like these will also facilitate the ability of some specialty practices to retain the continuing responsibility for patients whose chronic illnesses are quiescent or "cured." Innovation and experimentation will be important. No one model will fit every circumstance.

Generalists, too, will serve a variety of roles, but the hall marks will be greater acuity and complexity. One is their comparatively new role as hospitalists, an example of generalist

physicians gravitating to higher complexity care. A second is the collaborative care of patients with complex chronic illness, as mentioned. Third, is the traditional role of generalists in caring for patients with uncomplicated chronic disease and multiple co-morbidities, responsibilities that they will increasingly discharge in partnership with NPCs. And fourth are areas with special needs, such as rural communities, prisons and the military.

Generalist physicians have traditionally been major providers of front-line primary care, including wellness care, patient education, prevention and the care of acute self-limited disease. However, the lack of sufficient numbers of physicians, combined with the decreased interest of young physicians in such tasks and the doubtful wisdom of committing such highly-trained professionals to this purpose, predicts that more such care will be provided by NPCs and, through the use of the Internet and other resources, by patients themselves. While some have argued that this spectrum of responsibilities should be retained by physicians and provided through physician-directed "medical homes," it seems improbable that there would be sufficient numbers of such physicians, even if the model were ideal everywhere and for everyone. Rather, the provision of primary care services will have to be responsive to particular regions and subpopulations in each and to the spectrum of providers who are available to participate. Retail clinics, some in cooperation with hospitals or heath plans, are only the most recent innovation. As generalists relinquish their roles in front-line primary care, they will be called upon to serve as consultants for these various primary care systems. And they must be appropriately compensated for the higher average acuity and complexity of the patients they serve.

Does it matter? This analysis of the need to expand physician supply and encourage innovation in physician practices stands against a set of beliefs that more physicians and more health care may not be good for the nation and that primary care should supplant specialty care for patients with chronic illness. In fact, the preponderance of data do not support these conclusions. Moreover, when the studies underlying them are exposed to scrutiny, it becomes evident that some were confounded by the anomalous distribution of family physicians in the upper Midwest; some suffered from the error of aggregation and averaging; some relied on statistical permutations rather than measures of actual physicians; and many relied exclusively on analyses of Medicare spending, which is not a proxy for health care spending overall. As an example, Mississippi and Nevada, where quality is low, do not have high health care spending, nor do they have an abundance of specialists, as portrayed. They devote the least resources to health care, and have corresponding outcomes.

Most important in understanding regional comparisons is an understanding of the interplay between communal wealth and individual income in determining health care utilization and outcomes. Viewed in that light, more physicians, both specialists and generalists, and more health care spending are associated with better outcomes. Simply stated, "more is more." The nation may not be able to afford all of the health care that would be beneficial, but it would be a mistake to assume that spending less, or limiting physician supply in order to spend less, would be beneficial. Rather, it seems prudent to

base the future demand for physicians on realistic projections of health care spending, to respond to that demand by training as many physicians as is practical, and to foster innovations in practice structures that can aid in meeting needs as they evolve. Ultimately, high quality care depends on the autonomous exercise of clinical judgment by competent and empathic physicians who are accountable to their patients and society.

Selected references:

1. Cooper RA. Forecasting the physician workforce. In *Papers and Proceedings of the 11th Federal Forecasters Conference*. (Washington: US Dept of Education), 2000, pp. 87-96.
2. Cooper RA, Getzen TE, McKee HJ, Laud P. Economic and demographic trends signal an impending physician shortage. *Health Affairs* 2002;21(1):140-54.
3. Cooper RA. There's a shortage of specialists. Is anyone listening? *Academic Medicine* 2002;77:761-66, 2002
4. Cooper RA. Weighing the evidence for expanding physician supply. *Annals of Internal Medicine* 2004;141:705-14.
5. Cooper RA. It's time to address the problem of physician shortages: Graduate medical education is the key. *Annals of Surgery* 2007; 246: 527-34.
6. Cooper RA. States with more physicians have better-quality health care. *Health Affairs.* 2009;28(1): w91–102 (published online 4 December 2008) http://content.healthaffairs.org/cgi/content/full/hlthaff.28.1.w91/DC1
7. Cooper RA. States with more health care spending have better quality health care – Lessons for Medicare. *Health Affairs*. 2009;28(1):w103-15 (published online 4 December 2008) http://content.healthaffairs.org/cgi/content/full/hlthaff.28.1.w103/DC1
8. Physician shortages in the US: Commentaries and controversies. http://buzcooper.com/