

How the Changing Health Care Environment Will Exacerbate the Nephrology Workforce Crisis

By Rachel Shaffer and Mark G. Parker, MD

As is the case with many chronic diseases in the United States, chronic kidney disease (CKD) is on the rise. The recent recognition of CKD as a public health problem may be driving patients to nephrologists at earlier stages. At least 26 million Americans have some stage of CKD (Figure 3.1), and minority populations are disproportionately affected. Minorities constitute an increasingly greater portion of the United States population, and incident rates of end stage renal disease (ESRD) among African Americans and Hispanics are nearly four times and 1.5 times greater, respectively, than in whites.

The number of Americans—regardless of ethnicity—with diabetes and hypertension (the leading causes of CKD) is also growing. More than 750,000 people are expected to be alive with ESRD by 2020. These factors will boost the need for kidney care, but they are not the only pressures on the nephrology workforce. The Affordable Care Act (ACA), the aging baby boomer population, and changes to the Medicare ESRD program will each contribute to the need for more nephrologists in the coming decades.

By expanding the number of U.S. citizens with health insurance, the ACA is expected to fuel the demand for physicians, particularly primary care providers. Extending coverage to 32 million formerly uninsured Americans is also likely to increase the number of people with diagnoses of CKD, diabetes, and hypertension. Yet access to health insurance cover-

age will translate into access to kidney care only if an adequate workforce exists to accommodate the elevated demand.

According to a 2010 report from the Association of American Medical Colleges (AAMC), the United States will face a shortage of 91,500 physicians across all specialties by 2015 (Figure 3.2). The United States in 2002 started to expand its number of medical students, but the total number of residency and fellowship positions funded by the Medicare program has been capped since passage of the Balanced Budget Act of 1997. As the ACA places renewed emphasis on primary care rather than subspecialty care, and as medical students increasingly seek training in fields that are perceived to offer a more favorable work-life balance, nephrology training programs may face greater challenges in recruiting.

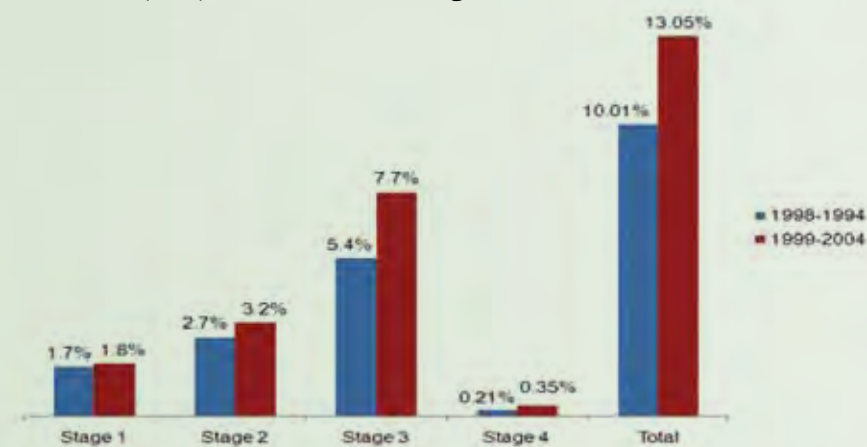
Although it is evident that the nation needs more primary care providers, data from the Department of Health and Human Services (HHS) demonstrate that Medicare beneficiaries also depend on the care of subspecialists (Figure 3.3). Encouraging students to enter internal medicine programs is an important step in meeting future health care needs—as will be attracting more of those internal medicine students to specialize in nephrology.

Besides extending insurance coverage, the ACA also encourages more coordinated, patient-centered models of health care delivery. The law specifically establishes Accountable Care

Figure 3.1

Percent, U.S. adult population with CKD

26.3 million (13%) of US adults CKD stages 1–4 in 2006



Coresh J, et al. *JAMA* 2007; 298:2038–2047

Figure 3.2

Projected supply and demand of physicians, 2008–2020



Source: HYPERLINK <http://www.aamc.org/download/150612/data/md-shortage.pdf>

Nursed Back to Health? The Nephrology Workforce Crisis and Other Providers

By Daniel Kochis

The workforce crisis hitting the field of nephrology extends beyond physicians to nurses, nurse practitioners, and physician assistants (PAs), who are often on the front lines in the battle against kidney disease. Nurses and nurse practitioners provide essential services to patients with kidney disease, working in hospitals, dialysis centers, and homes. They help bridge the growing gap between the number of patients with kidney disease and the availability of nephrologists.

Despite the essential role of nurses in caring for patients, the future of nursing is less than certain. In 2008, the average age for nurses reached 46, reflective of an aging trend among nurses that has accelerated over the past decade (1). Nursing retirements—especially by nurse managers—coupled with the ever-increasing demand for their expertise could compound the nephrology shortage in the near future. According to the Health Resources and Services Administration, only 64 percent of the demand for nurses will be met by 2020 (2).

On a more positive note, the number of PAs has more than doubled during the past 15 years (3). In 1997, fewer than 40,000 PAs were eligible to practice in the United States. An estimated 87,000 are in practice today, including those with a Certificate of Added Qualifications in nephrology. The National Commission on Certifi-

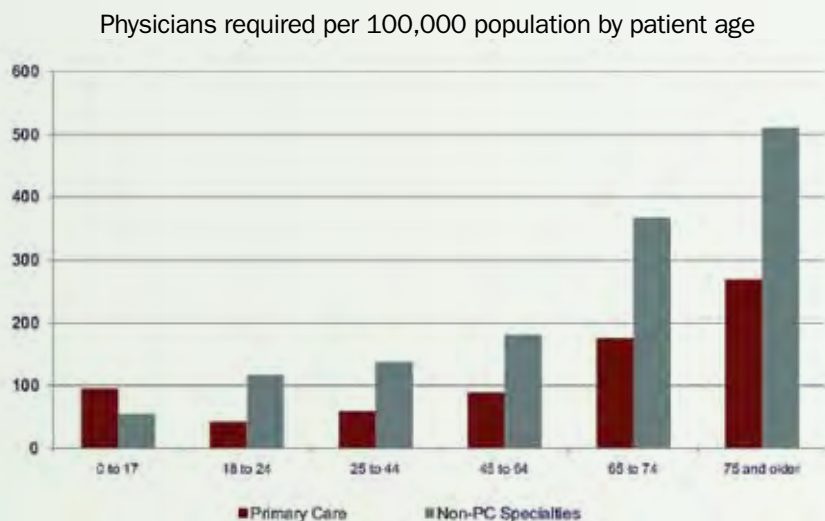
cation of Physicians Assistants predicts that 6277 PAs will enter practice in 2015, up from 2793 in 1997 (4).

Although the looming shortage of nephrologists remains ominous, the renal community should not lose sight of the parallel workforce shortage of other providers who care for patients with kidney disease. Only through the combined efforts of nephrologists, nurses, and PAs—as well as those who educate these caregivers—will the renal community provide essential care to patients with kidney disease in the future. ●

References

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3. American Academy of Family Physicians Masterfile. *Updates: Number of People in Clinical Practice as PAs*. Alexandria, VA, 2008.
4. National Commission on Certification of Physicians Assistants. Johns Creek, GA.

Figure 3.3
Medicare beneficiaries depend upon specialty care



Source: HHS/HRSA The Physician Workforce: Projections and Research into Current Issues

Organizations (ACOs), a model intended to facilitate provider coordination, improve quality, and reduce expenditures. Integral to these coordinated care delivery systems is a sufficient number of participating subspecialists to treat patients who need specific expertise and experience, such as those with kidney disease. The ne-

phrologist—a central provider for patients with advanced CKD, ESRD, or a kidney transplant—assumes a critical position in addressing the primary care needs of these patients, who tend to require frequent contact, and also in playing a role in their care-coordination.

Nephrologists are thus expected to

become key participants in ACOs for CKD and ESRD patients, analogous to the role suggested for specialists who treat patients with other chronic illnesses, such as asthma. Bolstering the nephrology and primary care workforce will be necessary to ensure that patients with kidney disease receive efficient, high-quality care as ACA implementation moves ahead.

“Giving an additional 32 million access to insurance is a very good start, but may be more of an illusion than a promise of health care,” observes Atul Grover, MD, PhD, AAMC chief advocacy officer. “Unfortunately, the 10,000 baby boomers who will turn 65 every day for the next 19 years will gobble up much of available physicians’ time leaving many Americans without access to a doctor despite whatever the card in their wallet says.”

Grover adds, “Data from HHS suggest that the newly insured could quadruple their need for general internists and internal medicine specialties, like nephrology. In a way, we are a nation that is a victim of its own success in making fatal diseases chronic illnesses—there are five times as many patients living with ESRD

today as there were 30 years ago.”

Moreover, even before the ACA is fully in place, nephrologists will play a leading role in piloting models for national health reform. As mandated by the Medicare Improvements for Patients and Providers Act of 2008, the Medicare ESRD Program will institute bundled payments in 2011 and the first-ever true pay-for-performance system in 2012. Each of these models—bundled payments and pay-for-performance—are also called to be tested in other fields of medicine, but nephrology will provide the first indication of their potential to improve outcomes while managing costs.

To ensure accessible, sustainable, and high-quality care in this novel payment environment, the United States needs an adequate supply of nephrologists. Translating this important goal into reality will require a reversal of current trends in medical students’ and residents’ interest in the specialty. ●

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What If the Projections Are Wrong? A Contrarian Position on the Workforce Crisis

By Tod Ibrahim

From boom to bust, the projections for the physician workforce in the United States reverse every 20 years. In the 1960s, experts projected a shortage of 40,000 physicians by 1975. During the 1980s and 1990s, some of the same experts predicted a surplus of up to 165,000 physicians by 2000. A few years ago, the country was expected to face a shortage of 55,000 physicians by 2020 (1). But with last year’s passage of the Affordable Care Act (ACA), which extends coverage to the uninsured, the country is now projected to need an additional 91,500 physicians by 2020 (2).

What if this prediction is wrong and the United States actually has an oversupply of physicians—including nephrologists—by the end of the decade? What if the physician workforce projections continue their 20-year boom-to-bust cycle?

No one today can predict how medical research, advances in genetic medicine, or innovations in bioengineering will affect the physician workforce during the next decade and beyond. No one today can predict how novel models of care (such as hospital medicine during the past decade) will affect the physician workforce in the future. No

one today can predict how the financial realities faced by local, state, and federal government—not to mention the majority of the U.S. population—will change access to health care. No one today can predict the ultimate fate of ACA—the most controversial law in a generation—or how it will shape the delivery of care.

“I worry that the workforce numbers will be impacted by the increasing use of other providers—particularly nurse practitioners and physician assistants (PAs) in kidney care—the decreasing reimbursement for all providers, and the growing trend toward nonpayment of internal medicine care provided by nephrologists to dialysis patients,” observes Sharon Adler, MD, FASN, chief of the division of nephrology and hypertension at the Harbor-UCLA Medical Center. “Together, these forces may result in less patient care provided by nephrologists.”

The number of nephrology fellows increased by 28.1 percent from 2002 to 2009. To meet projected demand, the number of nephrology fellows would need to increase by at least this rate during the next seven years. Such growth would mean that currently accredited nephrology fellowship programs would

need to train more fellows or that more teaching institutions would need to add accredited training programs in nephrology.

Neither of these options seems likely, however, because the number of accredited training programs has decreased (from 149 in 1986 to 141 in 2009) (4, 5), the Accreditation Council for Graduate Medical Education is unexcited about the prospect of even larger fellowship programs (the average number of

nephrology fellows per accredited program has increased from 1.6 to 6.4 since 1986), and the Balanced Budget Act of 1997 capped the number of residency and fellowship positions funded by the federal government.

Because of this cap and the long educational continuum (a minimum of seven years), the number of new physicians has remained relatively flat during the past decade. At the same time, the

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