Cardiology Workforce: There’s Already a Shortage, and It’s Getting Worse!

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I believe there is a shortage of cardiovascular specialists—especially general clinical cardiologists—in the U.S. today, and I predict it will get worse in the future. This personal opinion is at odds with the “common wisdom” and the most recent official position statement (1994) of the American College of Cardiology (ACC). There is increasing evidence, however, that the job market for cardiologists is strong and growing. Many College members tell me they need help, and many practices have been recruiting recently with variable success. As a result, I recently appointed a task force that will assess the adequacy of the current cardiology workforce and develop projections for the future supply of, and demand for, cardiovascular specialists. The task force will also study models of care that incorporate nurses and other nonphysician clinicians as part of a clinical cardiovascular team.

For a generation, we’ve been warned repeatedly about an impending glut of cardiologists (and several other types of specialists) in the U.S. In 1981, the influential Graduate Medical Education National Advisory Committee (GMENAC) predicted that America would have 92% more cardiologists than needed in 1990 (1). But the GMENAC prediction was way off—the surplus never materialized. Technological and procedural innovations supercharged our specialty and fueled demand for cardiologists during the decade. Other powerful social forces were at work, however, and it appeared they might counterbalance the implications of a host of scientific and technical advances. Especially during the early 1990s, when managed care promoted the gatekeeper model to restrict referrals to specialists and as concern grew about “low-volume” coronary interventionalists, calls for cuts in cardiology training programs became more insistent, more frequent, and more compelling.

By 1994, there was a growing consensus that the nation was producing too many cardiologists. In an editorial in Circulation, Lynn Langdon, Vice-President for Subspecialty Internal Medicine at the American Board of Internal Medicine, and Melvin Cheitlin, a prominent academic cardiologist in San Francisco, declared, “All major educational organizations concerned with internal medicine, including the Association of American Medical Colleges, the American Board of Internal Medicine, the American College of Physicians, the Association of Professors of Medicine, and the Federated Council of Internal Medicine, as well as a myriad of health policy and governmental groups, agree that the workforce in cardiology needs to be reduced” (2). That sounds compelling, and the long list of elite organizations they referenced added authority to their argument. But, as I have explained elsewhere, some leaders of these somewhat inbred organizations were conflicted with respect to cardiology. They shared a view that had long resonated in academic internal medicine leadership circles: that cardiology’s spectacular growth and financial success threatened the traditional paternalistic relationship between internal medicine departments and their cardiology divisions (3).

To be fair, however, most cardiologists—academics and practitioners alike—agreed with almost everyone else in 1994 that the future structure of American health care was uncertain and that managed care’s unchecked growth threatened specialty medicine. In this context, the ACC held its 25th Bethesda Conference, focused on “Future Personnel Needs for Cardiovascular Health Care.” The conference report, published in the Journal of the American College of Cardiology, included thoughtful summaries of the findings and recommendations of six task forces devoted to: 1) the underserved; 2) academic health centers; 3) partnerships in delivery of cardiovascular care; 4) the relationship between cardiovascular specialists and generalists; 5) a profile of the cardiovascular specialist—trends in needs and supply and implications for the future; and 6) pediatric cardiology (4).

The ACC Board of Trustees, responding to the Bethesda Conference Report and various other inputs, approved a policy statement in October 1994 that acknowledged a surplus of invasive cardiologists and recommended training fewer interventionalists. The Board also recommended reducing the number of adult cardiology fellowship positions by “the elimination of marginal programs rather than across-the-board reductions” (5). It is important to emphasize, however, that the ACC has never had direct authority over fellowship training programs or the number or types of positions offered. Regardless, a long-term trend toward closing or consolidating cardiology training programs accelerated recently. More importantly—and for the first time—the total number of cardiology fellows-in-training began to drop significantly: by 12% between 1995 and 2001 (Table 1). Meanwhile, in 1996 and 1998, almost all—98%—of
cardiology trainees obtained a post-training position, according to ACC surveys (6). That statistic surely does not support the notion of a surplus.

Considering the stature of the individuals and organizations sounding the surplus alarm, my position—that there is a shortage of cardiologists today and that it will get worse—may seem heretical. But what I will call the “shortage scenario” has been gaining momentum recently (7,8). History shows that workforce projections are often wrong. That is understandable—and it may be inevitable—because so many scientific, technological, social, political, and economic forces influence the complex equation. To make matters worse, these factors often fluctuate independently, unpredictably, and dramatically. As a historian, I am used to looking at long-term trends and interpreting social interactions, but I am cautious when it comes to predictions. The ACC must look to the future, however, if we hope to achieve the full potential of our integrated missions of education, quality, and advocacy. When the College looked forward recently, with the help of three futurists, we heard compelling evidence that suggested we are more likely to have a shortage than a surplus of cardiologists (9,10).

I hope this brief editorial will catalyze constructive debate about the cardiology workforce and the future of our specialty. The ACC has consistently articulated the value of cardiovascular specialty care and has published useful guidelines to help professionals decide how to treat patients more effectively. Timely access to specialists—a longtime focus of the College’s advocacy effort—requires an adequate, well-trained workforce that is distributed rationally, used efficiently, and equipped with state-of-the-art knowledge and tools. These ambitious goals can best be achieved, I believe, if the traditional definition of “cardiology workforce” is broadened. In another President’s Page, I will discuss the growing importance and added value of the “cardiovascular team.” Increasingly, these teams include nurse clinicians, physicians assistants, or other nonphysician clinicians hired by cardiologists. They are reshaping the way clinical cardiology services are provided in many contexts. But for the purpose of my present argument—that there is a growing shortage of cardiologists—I will not use this larger definition of cardiology workforce.

It is possible to list many factors that will variably influence the supply of, and demand for, cardiologists. As a clinician-historian with a long-standing interest in professionalization and specialization, I am most comfortable identifying factors that are likely to increase the demand for cardiologists. Most of these factors have a track record and a trajectory. To be sure, powerful social and economic forces modulate them. As the ACC studies the workforce, we will have to consider many things that might decrease demand for cardiovascular specialists and will present real challenges in terms of optimizing their supply. But, for now, I will list only things that might be called “demand catalysts.”

DEMAND CATALYSTS: FACTORS THAT WILL INCREASE DEMAND FOR CARDIOLOGISTS

• Patients want direct access to specialists, and many health insurance plans have eliminated or modified their unpopular and much criticized mandatory gatekeeper stop.
• The growth and aging of the U.S. population will lead to a significant increase in the number of persons with cardiovascular disease.
• The public is becoming more informed about cardiac diagnosis and treatment options as a result of the Internet, media coverage of medicine, and direct-to-consumer advertising.
• Innovations that require special procedural or interpretative skills will create a demand for cardiologists trained to provide these services (e.g., radiofrequency ablation in cardiac electrophysiology).
• Some new cardiac medications may have potential side effects that might encourage primary care physicians to consult specialists more frequently (similar to what has occurred with amiodarone and carvedilol, for example).
• The diffusion of screening technologies, such as electron beam computed tomography and hand-carried echo-Doppler devices, is likely to increase referrals to cardiologists or cardiology subspecialists. These tools will detect some unexpected abnormalities (e.g., significant coronary calcification, occult left ventricular dysfunction) that may result in consultations, additional diagnostic tests, and therapeutic procedures.
• The ongoing knowledge explosion makes it increasingly difficult for family physicians and general internists to keep up with new advances that are likely to result in more referrals to cardiovascular specialists. This phenomenon also exists within cardiology, whereby general clinical cardiologists refer certain patients to other cardiovascular specialists with specific skills (e.g., an electrophysiologist or an interventionalist).
• In order to improve patient access and preserve or expand market share, many cardiology groups and institutions are recruiting cardiologists to help staff satellite offices or outreach programs they have established or hope to launch.
WHAT’S NEXT? THE ACC WORKFORCE TASK FORCE

The ACC’s new task force is charged with evaluating the current cardiology workforce and job market as well as projecting workforce needs over the short term (2 to 4 years) and medium term (5 to 10 years). The task force will review and collate relevant information that is already available and will collect new data to help achieve these ambitious goals.

John Hirshfeld, Jr., an interventional cardiologist and former chair of the ACC Board of Governors, will co-chair the task force with me. The College will coordinate its workforce study with similar efforts under way or planned by the major cardiology subspecialty societies, including the Society for Cardiac Angiography and Interventions, the North American Society of Pacing and Electrophysiology, the American Society of Echocardiography, and the American Society of Nuclear Cardiology. Each of these organizations is represented on our new task force. Valentin Fuster, chair of the ACC’s Cardiology Training and Workforce Committee, represents the American Heart Association. The 16-member task force includes several individuals with experience in workforce assessment or persons who will otherwise inform the process. I asked Savitri Fedson, a senior cardiology fellow at the University of Chicago, to join the effort as a representative of our future.

The new ACC task force will face several challenges as it collects and synthesizes data and develops its report. Traditional methods used to “count” cardiologists are no longer adequate. In the past, the main challenge was to determine how a cardiologist split his or her time between cardiac care, general medical care, and nonclinical activities. Today, most cardiovascular specialists provide little primary care, and many spend a significant amount of their time performing sophisticated procedures or interpreting specialized tests.

Recent ACC data remind us that our members practice in a wide variety of private practice and academic settings. The most popular model—the model that accounts for almost one-half of our members—is the single-specialty cardiology group. As we assess the job market we need to find out which types of cardiologists are being sought, where, and by whom. Another major goal of our workforce study is to identify models that successfully integrate nonphysician clinicians as members of an efficient and effective cardiovascular health care team. The College can then publicize these models to our members, who may wish to consider them as they reflect on the clinician workforce needs in their practices.

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REFERENCES