The Delicate Task of Workforce Determination

EDITORIAL

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"Prediction is difficult; especially about the future"—Yogi Berra

Yogi Berra's well-known quote is particularly apt when applied to recent attempts to measure the U.S. generalist–specialist medical workforce and to predict future workforce distributions.[1–3] Predictions of a physician surplus by the year 2000 have featured in studies conducted in the 1990s on behalf of the Council on Graduate Medical Education (COGME).[4] Increased demand for generalists was anticipated both by these studies and on account of a general hubris that included more managed care. Oversupply of specialists was expected. On the other hand, a continued shortage of generalist physicians was predicted. Public policy at state and federal levels adjusted to avert this event and now we are starting to see such research as that of Lurie, Goodman, and Wennberg,[5] suggesting reasons to celebrate a policy success—we think.

The research reported by Lurie and colleagues is masterful. They developed a sensible model accounting for new, partial, and departing physicians; made their assumptions explicit; adjusted for differences in work patterns that tend to be common in women; provided sensitivity testing; and coped with combined residency programs. Using the model and benchmarking against both need and demand-based physician density standards, they project that the supply of generalists will be 85 per 100,000 people in 2025, or about 1200 patients per generalist physician. The implication is that at current levels of training, the supply of generalists will grow and shortly exceed several accepted standards of need. This is surely a declaration of the success of multiple efforts to reverse decades of decline in U.S. general practice.

Any theoretical model draws critics to consider its weaknesses when it is applied to practical questions. Here, one might comment on the limitations of Lurie's model. It does not accommodate diminishing numbers of medical graduates entering residency programs in the primary care specialties in the past 4 years[6]—this would move both baseline and the projected slope to more conservative levels. It treats all generalists as if they are interchangeable in the ways they provide health care to the people of America—we know that family physicians are more versatile and distribute more readily into rural, poor, and underserved areas.[7] It focuses on women in the medical workforce at the expense of wider generational effects—both young men and women entering the workforce may adopt work patterns previously attributed to women alone, further flattening the model's predicted slope.

Prediction about the Workforce Is Difficult

But to discard this and other[4] models entirely on the basis of elements of their assumptions is to throw in the towel on the quest to tailor the size of the medical workforce. Because workforce assumptions are volatile and because small changes in reality can have a massive impact on predictions, it may be wiser to use models such as Lurie's to monitor and adjust rather than as a definitive prediction from which policy changes with profound effects might arise. To make an analogy with weather prediction: We can say with some confidence what the weather is like now, or in 5 minutes, but even 1 day out weather forecasts become unreliable. Predicting the

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weather a year in advance becomes a ludicrous proposition. Yet over time, meterologists have built a body of knowledge that allows for reasonably accurate forecasts for certain months or seasons (although they become increasingly imprecise as they move farther into the future). Workforce analysts need to continue to build up a similar body of knowledge about the entire health care workforce. Repeated use of the model in Lurie's paper, along with other models, will make an important contribution to this task.

Moving Beyond Workforce Creation

So what should be the policy response to findings from this paper? First, it should not be hasty, nor based on this exercise alone. If, through continued monitoring over time, the expectation of a sufficient supply of generalists in the medical workforce is confirmed, a new era of policy challenges will emerge.

Moving from workforce creation, foremost among the new generation of challenges will be workforce distribution. Although they may have allowed the establishment of a medical workforce capable of fulfilling the primary care function in America, policy options to date have also tolerated persistent pockets of underservice in rural areas, in areas populated by ethnic minority groups, and in areas of low socioeconomic status.[8, 9]

There is work to be done in recognizing the value of generalist practice and rewarding it. There is sufficient understanding of the distinctive intellectual reach of generalist medicine and, if the application of Lurie's model holds true, adequate human capital to practice it. It will take systematic policy change to address the financial and other disincentives that currently prevent the people of America from enjoying the full benefits of the generalist physician workforce that earlier policy maneuvers helped to create.

Integrating Generalists and Specialists

Increasing requirements for teamwork in health care provision may either blur or clarify disciplinary boundaries. Managing reimbursement policies to reward effective team care has already become a major challenge for policymakers. Health system designers are working toward increased integration of the services of the myriad different providers that people may need to meet their health care needs.[10] In a capitalist culture, the temptation is to view the medical workforce as a matter of survival of the fittest, producing the "healthiest" outcomes by competition between individual providers and provider specialties. However, there are good reasons not to rely on competition as the means to achieve the best alignment of the health care workforce.[11]

Recently, Feachem and coworkers[12] compared the performances of the U.K.'s National Health Service and Kaiser Permanente in California. They found that, for similar costs, the American HMO trumped the British health system in terms of access, responsiveness, and quality outcomes. They attributed this result to the better integration of primary and secondary care specialties in the American model. Relatively poor integration of their roles and services with specialty medicine reduced the effectiveness of the abundance of primary care physicians in the United Kingdom. The message is not that health care providers should stake out territory and compete for turf, but that the needs of the patient population should guide management and policy decisions on the configuration of the medical workforce. Both specialty and generalist medical domains must have an adequate number of physicians. Properly engaged, generalists hold health systems together—they are the integrators who bring people in need to the islands of expertise occupied by specialists. The very existence of specialty medicine establishes the need for a robust generalist workforce.[13]

Future Challenges

Lurie's analysis suggests that as a nation, the United States has reached equipoise in its health care workforce. While continuing to seek confirmatory evidence, we should also consider the direction of workforce change that is needed to meet the health care needs of Americans in the twenty-first century. Systems seldom remain balanced for long. By the time we truly know where we are, we will have moved.

The only certainty about the future is that it will be different from the past. Different ways of thinking will likely be required. We should consider whether the specialist–generalist dichotomy has outlived its usefulness, related as it is to the decline in the number of general practitioners that occurred in the 1960s. Maybe we should begin thinking about primary and secondary care functions instead—and how these might best be developed. Maybe we should alter medical education programs to emphasize social responsibilities. Maybe the notions of medical professionalism and service can be accorded greater prominence in education and practice, to encourage fairer distribution and use of available health care resources.

The business of workforce prediction is notoriously tricky. A shifting landscape has already altered some of the assumptions from which Lurie and colleagues derived their results, despite a meticulous investigation and their use of the most current data. Let this serve as a reminder that we should adopt some humility when it

comes to declaring what will happen and what will be needed. A prudent interpretation of this work is that it is time to shift the policy objective about the primary care workforce from developing more generalists to sustaining production while optimally deploying the primary care workforce. This will require newly designed, information age practices to accomplish. We could declare an interval victory on one set of issues and work together to build on that success to achieve an unprecedented, high-performance health care system that the richest country in the world will be proud of.

Whatever the future, it will be necessary to remain focused on the people of America, monitor events, and reconfigure the workforce to serve their needs. At the end of the day, that's what it's all about.

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