

# The Pediatric Subspecialty Workforce: Time to Test Our Assumptions

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OVER 20 YEARS ago, my experiences as a rural National Health Service Corps physician challenged my assumptions that nearby pediatric care was of primary importance to parents. About halfway through my first year of practice, I was surprised to realize that many families continued to drive as long as 90 minutes to be seen by a family practitioner or an exceedingly busy pediatrician—this despite my Johns Hopkins training and wide-open practice. At the time, I ignored the contradiction that my family and I would routinely bypass our small town's grocery store and travel the extra hour to a slightly larger emporium that sold Pepperidge Farm cookies and Thomas' English Muffins, which were considered luxury foods in the northern tip of New Hampshire. Geography may be important in rural areas, but it is not destiny.

In this issue of *Pediatrics*, Mayer<sup>1</sup> provides a vivid and detailed description of the geographic availability of pediatric subspecialists. The limited supply of these physicians can vex families, primary care physicians, children's hospitals, and medical schools. This is a long-standing problem,<sup>2</sup> with a recent heightened level of concern.<sup>3</sup> Despite efforts over 4 decades to address the overall shortage and geographic disparities, the goal of reducing supply barriers to children's subspecialty care remains a mirage on the horizon; we keep on walking but never seem to get closer. Perhaps this is because of the assumptions that we hold close to our professional hearts. For example, my experience as a rural pediatrician revealed that the "cost" and perception of travel and quality vary by parents. Assuming that closer medical care is always better can bind us to policy goals that are difficult, perhaps impossible, to achieve. What other assumptions do we make about the pediatric subspecialty workforce?

I will review some of the assumptions that Mayer points out in her article and identify a few more. All of these assumptions merit critical investigation and principled discussion despite the attendant discomfort. Without a fundamental reevaluation of the premises of our policies, we will be doomed to press the same weakly effective policy initiatives with the same limited results.

Our first assumption is that we are able to accurately count pediatric subspecialists with existing data sets. Most pediatric subspecialists are rare events by any epidemiologist's definition, and miscounting 1 or 2 can severely bias workforce measures. Mayer aptly points out the undercounting of pediatric subspecialists by the American Medical Association (AMA) Masterfile. The AMA database draws its information from graduate medical education programs and some state licensing boards, but physician surveys are important for updating the Masterfile practice location and professional activity, specialty included. What did you do with your last AMA survey, if you can remember it at all? The American Board of Pediatrics has tried to fill this gap with accurate counts of those receiving certification but without information about the physician's level of clinical activity. The assumption that a board-certified physician is in practice ignores physicians undertaking generalist roles

**Abbreviation:** AMA, American Medical Association

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or leaving practice temporarily or permanently and those who have limited clinical responsibilities as they engage in medical teaching and research. This data critique is not meant as a dismissal of Mayer's results, which may overestimate availability, or of other studies that have used either data set. Both sources are able to support national studies leading to overall generalizations about pediatric subspecialists if the possible biases are understood, but analyses for local or regional planning require highly accurate measures that can only be obtained through primary data collection or claims analysis.

Turning from measurement, the second commonly held assumption is that there is an accepted normative travel time or physician-to-population ratio and that falling short of these norms can adversely affect children. We often do not know which rate is right, but there is evidence that very high supply can needlessly drive utilization or is simply wasteful.<sup>4,5</sup> Furthermore, the right rate for children's health and well-being is likely to differ across regions. The relative geographic availability of physicians is a trade-off between regionalization and higher patient volumes. What level of difference in supply is acceptable to have children seen at high-volume centers of excellence? Perhaps we should not have pediatric rheumatologists in every small city if patient volumes will marginally support only 1 physician.

Third in the list of assumptions is that pediatric subspecialists are sufficiently homogeneous to be considered overall as a target of workforce policy. How can this be when it includes rapidly growing and relatively high-paid specialties such as neonatology and the poorly remunerated small subspecialty of developmental-behavioral pediatrics? Aside from differences in size and compensation, pediatric subspecialties also differ in their relative roles in teaching and research. The opportunities for pediatric infectious disease specialists predominantly occur in academic centers, whereas pediatric cardiologists can often be found in nonacademic medical center practices. The labor markets for pediatric subspecialists vary by each specialty and for practice settings; the numbers, professional roles, and demand factors for community subspecialty practice are very different from academic settings. Policy that generally promotes the growth of pediatric subspecialists may only further accelerate the growth of larger subspecialties, leaving the smaller ones behind, and may inadequately address the highly technical education and research needs of academic centers.

Perhaps the most daunting assumption is the fourth: solving the undersupply present in some subspecialties requires changes in the health care system. A straightforward example is that reimbursement of physicians is unfair, rewarding those subspecialties that treat adults or subspecialties that are procedurally oriented. What if public and private payers will not make meaningful

changes in reimbursement, particularly of the cognitively based non-intensive care subspecialties? I agree that the payment system is unjust, but its basic unfairness endures because children and pediatricians are no political match for more powerful specialties who may like to be identified with the altruism of children's medical care, as long as it does not threaten revenues. As a result, payers of health care have made only minor modifications of physician reimbursement. It is tough to consider the alternative—that we need to formulate policy for children's care within current funding conventions. We need to consider this approach as we await more substantial improvements in reimbursement.

One assumption that is supported by evidence is that monetary and lifestyle issues contribute to the difficulty of attracting trainees to fellowships, in sustaining training programs, and in subspecialist recruitment. Although it is true that general pediatrics remains very attractive to US medical school graduates despite stagnant salaries, there is a natural limit to the sacrifice of pediatricians. Medical student debt continues to rise, and the typical 3-year subspecialty fellowship is followed by salaries that are modest compared with most adult specialties. The compensation of radiologists and anesthesiologists dwarfs pediatric subspecialists despite their shorter training periods and more predictable call schedules. No wonder that the demand for training positions in these specialties is high.

If money is important but reimbursement reform is uncertain, then we must examine 3 additional assumptions about pediatric subspecialists. With this I will test some readers' patience but also realize some additional opportunities for improving children's access to care.

The attractiveness of many subspecialties is limited by the assumption that training generally requires a 3-year fellowship. What is the evidence that this length of training is necessary for excellent clinical care? The justification seems to be that it is a reasonable training period for a research-oriented academic physician.<sup>6</sup> This is an educational policy decision that was made with the best intentions but without substantive data on the educational outcomes. We need to know if current training periods are necessary, because there are data, not just an assumption, that the costs to fellows associated with training can discourage specialty entry.

Next, we should check the assumption that a full fellowship, even if shortened from that required today, is necessary to care for many of children's subspecialty needs. We are entering an era with an ample and growing supply of general pediatricians.<sup>7</sup> Child psychiatry has responded to the availability of pediatricians and scarcity of child psychiatrists by proposing a general and child psychiatry program that is only 3 years long (T. F. Anders, MD, written communication, 2006). Modifications of residency training or minifellowships that lead to competency, but not board certification, could also

address many of the common problems managed by pediatric subspecialists (constipation, headaches, cough, acne, diabetes, and development delays).

Finally, why do we assume that there are no subspecialty problems of children that could be managed by an adult subspecialist in fields such as rheumatology, neurology, and dermatology? Of course there are, but the quest to solely promote pediatric subspecialism ignores the current efforts of our adult colleagues and the potential to improve child care through additional training in pediatric care. The idea that children are not little adults should not be used as an excuse to ignore what is common with children and adults, and with adult and pediatric subspecialists.

There is an old aphorism that if you can't change the world, you better change yourself. We have applied the best intentions and efforts over the years to improve children's access to subspecialty care, and Mayer's study reveals only limited progress. It is time we challenge the assumptions behind the policies we continue to promote.

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