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COMMENT

Access to pediatric subspecialty care for children and youth: possible shortages and potential solutions

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As many as 20% of children and youth have special health care needs (CYSHCN), many with complex medical conditions who require pediatric subspecialty care in the first two decades of life.[1] Shortages of physicians in many pediatric subspecialties have been reported by families of CYSHCN, pediatric primary care providers, and academic department chairs, although verifying and quantifying the extent of subspecialty-specific shortages is fraught with methodologic challenges.[2–4] Some families report long waits for initial appointments, particularly in developmental behavioral pediatrics and child psychiatry.[5] A number of pediatric primary care providers have expanded their scope of practice in those areas to help reduce the need for referral.[6] Public and private payers struggle to ensure network adequacy, especially when families of CYSHCN with complex clinical conditions live far from the urban academic health centers where pediatric subspecialists tend to practice congregate.[7] Pediatric department chairs have often reported significant difficulty recruiting for many pediatric subspecialties, including endocrinologists, developmentalists, and neurologists.[3,8] Pediatric surgical specialties report similar challenges.[9] Studying pediatric workforce using quantitative methods has been challenging and somewhat controversial, yet the problem remains: how do we assure that all have timely access to the care they need for the unique health problems of children and youth?[10,11]

The increasing demand for pediatric subspecialty care has occurred concurrently with a marked increase in supply of pediatric subspecialists. While 35–40% of graduates of pediatric residency programs in the United States choose primary care careers, the absolute number of pediatric residents entering fellowship training has steadily increased year over year since the turn of the century.[12] This is especially true in neonatology, critical care, cardiology, hematology–oncology and emergency medicine. Of note, the proportion of pediatric residency graduates whose future clinical practice goal is hospital-based medicine has increased from about 3% in 2003 (when first measured) to almost 10% in 2018.[12] If the overall subspecialty workforce is increasing in size, why is access still perceived to be a problem? The answer may lie in the distribution of our workforce and the way in which subspecialists work.[13] Except in neonatology, most of the newly graduated fellows find positions in academic medical centers that, particularly when associated with large children's hospitals, are generally located in large urban centers. Private pediatric subspecialty practices share this geography as well.[10] Children from the suburbs, small towns, and rural areas, particularly those with limited resources, may have difficulty in receiving care easily from a distance. Perhaps more importantly, the culture of academia, with its emphasis on teaching, research, and service, may implicitly or explicitly discourage time spent in clinical care as faculty members often strive to reduce clinical time in order to fulfill other aspects of the academic mission.[14] Moreover, incentives for success in academia are rarely, if ever, associated with clinical care.

Another aspect to this issue involves the proportion of pediatricians who work part-time. Although 25% of general pediatricians work part-time, less attention is focused on work hours among subspecialists. Currently, 10% of pediatric subspecialists work part-time, with >20% in part-time practice within some of the subspecialties with the greatest access problems.[10] Finally, unlike many of their primary care colleagues, pediatric subspecialists often attend both inpatient and outpatient services, rather than ceding the day-to-day management of inpatients to the growing practice of hospital-based pediatrics. For all of these reasons, it is possible that our education and training system is producing more board-certified pediatric subspecialists but is not increasing access to clinical services needed by our patients, especially CYSHCN.

Policy changes to address the problem of access to pediatric subspecialty services must address both the potential need for more pediatric subspecialists and the need to assure that those subspecialists are providing the services needed by CYSHCN and their families. Policy opportunities can be sorted into two categories as listed below.

POLICIES TO INCREASE THE SUPPLY OF PEDIATRIC SUBSPECIALISTS

Most graduating pediatric residents have incurred substantial educational debt, making additional years of subspecialty training a financial burden for them and their families. A loan repayment program for those entering pediatric subspecialty practice was authorized in the Affordable Care Act, but funding was never appropriated by Congress for implementation.[15] A bill reauthorizing that program is currently under consideration in Congress, with the support of the American Academy of Pediatrics and the Pediatric Policy Council.[16] However, to improve access to care, the program must be carefully targeted toward the subspecialties with

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the greatest mismatches in physician supply and patient demand and must also be designed to encourage subspecialists to practice in both academic and non-academic settings. Additional guardrails must assure that these subspecialists can maintain a strong clinical presence throughout their careers. While the federal government has long experience in using loan repayment as a tool to guide career paths, this program will require a new set of analytic tools and a deep understanding of the many ways in which pediatric subspecialty care is delivered across the country.

POLICIES TO IMPROVE ACCESS TO PEDIATRIC SUBSPECIALISTS CURRENTLY IN PRACTICE

Some health care systems have started to rethink ways in which pediatric subspecialists are deployed, to maximize their efficiency and access to subspecialty care. Some academic centers have developed and encouraged clinical pathways for career promotion, emphasizing the importance of clinical work in academic practice. Many systems use nurse practitioners, physician assistants, and non-fellowship trained pediatricians as the entry point into team-based care, allowing for clinical questions to be clarified and information organized before it is brought to the subspecialists. Others have moved to create systems where subspecialists provide peer-to-peer consultation through telephonic (synchronous) or electronic (asynchronous) consultations, encouraging primary care providers to manage problems that may have been referred in the past for subspecialty care.[17,18] The Centers for Medicare and Medicaid Services (CMS) have recently approved billing codes to support these services, but they will need to be adopted as reimbursable by public and private payers around the country to change pediatric practice.[19] Some subspecialty practices have developed arrangements with community-based primary care providers to co-manage the care of subspecialty patients though telehealth and shared care plans.[20]

As medically complex patients become more common in pediatrics, health care systems should develop tight links with home-care agencies and schools to assure a seamless transition from inpatient to community-based settings.[21] Complex care teams have been developed in many communities to partner with primary care providers to manage medically complex children, building on the experience of several initiatives funded through the Centers for Medicare and Medicaid Innovation.[22] The Advancing Care for Exceptional Kids Act, recently passed by Congress and currently in rulemaking at CMS, provides a path to support such programs in the future.[23]

Ultimately, increasing access to pediatric subspecialty care for CYSHCN will require continued efforts to train and deploy more pediatric subspecialists across the country, as well as new models of care that emphasize collaboration and the efficient use of scarce resources within and beyond academic health centers. These novel methods of pediatric subspecialty deployment will require innovative financing to support the transition to a system in which most CYSHCN receive pediatric subspecialty support through partnership with primary care and community agencies. In addition, it will be essential to measure pediatric subspecialty workforce supply and patient demand with greater clarity and consistency, in order to gauge whether new approaches are meeting local and national goals in children's medical care or must be further refined.

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