American Academy of Pediatrics
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POLICY STATEMENT

Pediatrician Workforce Policy Statement

abstract

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This policy statement reviews important trends and other factors that affect the pediatrician workforce and the provision of pediatric health care, including changes in the pediatric patient population, pediatrician workforce, and nature of pediatric practice. The effect of these changes on pediatricians and the demand for pediatric care are discussed. The American Academy of Pediatrics (AAP) concludes that there is currently a shortage of pediatric medical subspecialists in many fields, as well as a shortage of pediatric surgical specialists. In addition, the AAP believes that the current distribution of primary care pediatricians is inadequate to meet the needs of children living in rural and other underserved areas, and more primary care pediatricians will be needed in the future because of the increasing number of children who have significant chronic health problems, changes in physician work hours, and implementation of current health reform efforts that seek to improve access to comprehensive patient- and family-centered care for all children in a medical home. The AAP is committed to being an active participant in physician workforce policy development with both professional organizations and governmental bodies to ensure a pediatric perspective on health care workforce issues. The overall purpose of this statement is to summarize policy recommendations and serve as a resource for the AAP and other stakeholders as they address pediatrician workforce issues that ultimately influence the quality of pediatric health care provided to children in the United States. *Pediatrics* 2013;132:390–397

COMMITTEE ON PEDIATRIC WORKFORCE

KEY WORDS

pediatric medical subspecialists, pediatric surgical specialists, pediatrician workforce, medical home

ABBREVIATIONS

AAP—American Academy of Pediatrics
GME—graduate medical education
IMG—international medical graduates
NP—nurse practitioner
PA—physician assistant

INTRODUCTION

To achieve optimal health and well-being for all infants, children, adolescents, and young adults, sufficient numbers of appropriately trained primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists (as a group henceforth referred to as "pediatric physicians") must be available to provide care. This statement is meant to be inclusive of all physicians who focus on care for children, including pediatric hospitalists, medicine/pediatrics-trained physicians, and other physicians who limit their practice to the care of children (eg, child and adolescent psychiatrists). There are important trends that affect the pediatrician workforce directly or indirectly. Some of the trends that affect the pediatric workforce are changes in the pediatric patient population, including increases in the number of children with chronic health conditions and complex medical needs and increasing diversity of the US child population. In

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addition, there are important trends in the pediatrician workforce, including changes in work hours, employment status, and interest in primary care versus subspecialty careers that will affect the supply of pediatricians available to meet the needs of this changing population. Finally, the nature of pediatric practice is evolving as health care systems encourage the formation of accountable care organizations and emphasize implementation of the patient-centered medical home. Other factors significantly affect the pediatrician supply, such as availability of funding for pediatric graduate medical education (GME), pay inequities between those who provide care to children and those who provide similar care to adults, and shortages and maldistribution of the pediatrician workforce, geographically and among medical subspecialties and surgical subspecialties. The overall purpose of this statement is to summarize policy recommendations and resources for the American Academy of Pediatrics (AAP) and other stakeholders as they address the pediatrician workforce issues that ultimately influence the quality of pediatric health care provided to children in the United States.

CHANGES IN THE PEDIATRIC PATIENT POPULATION

The adequacy of the pediatric physician workforce is affected by the health status of the nation's children. Approximately 26.6% of children have a chronic health condition, such as asthma, obesity, diabetes, or mental health disorders.[1] The increased prevalence of chronic diseases in children has expanded the need for pediatric physicians, including primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists. Optimal health care for these children requires the availability of a medical home, in which physicians manage all aspects of pediatric primary care, including provision of health maintenance and acute care; advocating for patients with insurers, schools, and other community agencies; and referral to and coordination of care with other physicians. These services should be provided in a longitudinal manner that engenders trust in the relationship and ensures a family-centered format.[2]

Because of the increasing racial and ethnic diversity of the pediatric population, the pediatrician workforce must continually strive to provide culturally effective care.[3] Educational and recruitment strategies to increase culturally effective care and multilingual abilities of the pediatrician workforce should be encouraged. In addition, there is an ongoing need to increase racial and ethnic diversity among the pediatrician workforce, in part because minority pediatricians continue to be more likely to provide care to minority children and their families in a disproportionate manner.[4–6]

CHANGES IN THE PEDIATRICIAN WORKFORCE

Data from the US Residency Match demonstrate a strong interest in pediatric residency positions. National Residency Matching Program data from 2011 reveal that 98% of first-year positions in pediatrics filled, and, from 1997 to 2011, the percentage of first-year positions that filled has exceeded 90%.[7]

However, a simple comparison of the number of pediatric physicians per child population does not provide an accurate picture of the adequacy of the workforce, because many variables incorporated into supply calculations are changing, including the percentage of pediatric physicians who work full-time, average number of work hours per week, complexity of patients, and the percentage of pediatric physicians who leave the workforce for extended periods. For example, the number of pediatric physicians who work part-time continues to increase, from 15% in 2000 to 23% in 2006.[8] Among graduating residents who are applying for nonfellowship positions, as many as 38% are seeking part-time positions.[9] Because part-time physicians work, on average, 14.3 fewer hours per week in direct patient care, the number of pediatricians needed to provide clinical care may be greater than if all pediatricians worked full-time.[10] Although the growth in part-time practice has been attributed largely to the increasing number of women entering pediatrics, a recent AAP member survey revealed that the percentage of men working part-time has significantly increased as well, doubling from 4% in 2000 to 8% in 2006.[8] This survey also revealed that the percentage of pediatricians younger than 40 years who work part-time significantly increased from 18% in 2000 to 29% in 2006. Among pediatricians older than 49 years, the percentage working part-time tripled from 6% in 2000 to 18% in 2006.[8]

In addition to part-time practice, increased numbers of pediatricians are temporarily suspending their clinical practice or assuming nonclinical roles in medicine or other fields, which may affect the availability of pediatric physicians to meet demands for clinical care.[11,12] If pediatric physician work environments do not provide the opportunity for pediatric physicians to adjust their clinical workload so that they have sufficient time to manage other responsibilities (eg, child or elder care) and pursue other interests outside of medicine, more pediatric physicians may abandon clinical practice completely. Therefore, removing barriers to part-time practice and enabling more physicians to reenter clinical practice after periods of inactivity could improve the future supply of pediatric physicians.[13]

Another factor that is increasing the demand for primary care pediatricians is the decreasing role of family physicians in caring for children. From 1996 to 2006, the percentage of visits for children younger than 18 years to nonpediatric generalists declined from 28% to 22%, whereas the percentage of visits for children younger than 18 years to general pediatricians increased from 61% to 71%.[14]

Although nonphysician clinicians, such as nurse practitioners (NPs) and physician assistants (PAs), are not the focus of this policy statement, they are important and valuable participants in the health care team that provides care for children. However, NP and PA training and skills are not interchangeable with those of pediatric primary care physicians; therefore, they cannot be substituted for them as leaders of the pediatric medical home. In addition to differences in training and experience, the numbers of nonphysician clinicians who care for children is insufficient to replace the care provided by pediatric physicians.[15–17] Only a small percentage of PAs and NPs choose pediatric careers. For example, most states have fewer than 50 pediatric PAs, and fewer than 15% of NP students choose pediatric careers.[16,17] Indeed, the number of NP programs offering a pediatric track declined from 1996 to 2008, and only approximately 600 pediatric NPs complete training each year in the United States.[17]

Although family NPs may provide care for children, pediatric patients represent only a small fraction of their patients.[18] Some groups have suggested that NPs can be used to address the shortages of primary care physicians and pediatric specialists, especially in rural areas.[19] However, the percentage of NPs interested in working in areas of physician shortage is small, and few pediatric NPs choose to practice without a physician.[15] In states where NPs can practice independently, only 11% choose to do so,[15] and fewer than 3% of NPs work in small rural communities.[20] In addition, it is not likely that NPs will provide the full scope of care that pediatric physicians provide. Indeed, a minority of pediatric NPs provide emergency or inpatient care.[15] Because of these issues, it is unlikely that pediatric PAs and NPs can play a significant role in addressing the shortage/maldistribution of primary care pediatricians or pediatric medical subspecialists.

With the increase in the percentage of children who are insured as a result of health care reform, the number of children who will be able to obtain pediatrician services will increase. However, many children will remain uninsured despite health care reform, such as undocumented children, because they are not eligible for enrollment.[21] Poor payment rates for pediatric services adversely affect the pediatrician workforce by threatening the economic viability of pediatric practices, and the combined effect of lack of insurance and poor payment rates have detrimental effects on the health of entire communities.[22,23] When the supply of pediatric primary care physicians in a community is inadequate, children will not have access to a pediatric medical home and may receive care in alternative settings, such as emergency departments and retail-based clinics, where the focus is on acute and episodic treatment rather than health supervision and preventive services.

Other factors that may affect the pediatrician workforce include the supply of international medical graduates (IMGs) entering the US workforce. The current expansion of US medical schools and medical school class sizes may adversely affect the number of IMGs able to obtain residency training in the United States. In addition, a decrease in the number of J1 visas issued may adversely affect the number of IMGs who choose to practice in rural or other underserved communities. Thus, underserved areas may be faced with increasing shortages of pediatric primary care physicians if the increased output of US medical schools is not accompanied by an increase in the number of those graduates who enter primary care or underserved practice areas.[24]

CHANGES IN THE NATURE OF PEDIATRIC PRACTICE

The primary care pediatrician's role in providing health care for children has been significantly affected by the need to spend increased time coordinating care services; counseling families; and advocating for their patients with insurers, schools, and other community agencies, important functions in a true medical home but not compensated well by current payment mechanisms.[25] Furthermore, the increased complexity of pediatric patients requires greater time and resources of the pediatrician to manage their care. Although primary care pediatricians may have fewer inpatient responsibilities because of the emergence of hospitalists, this decrease in responsibility has been accompanied by an increased need for them to provide coordination of care for children after hospital discharge, care that is often not covered by insurers.[26]

The clinical availability of pediatric physicians has also been adversely affected by the increased amount of time they must spend on practice management because of the ever-increasing amount of paperwork required to obtain payment.[27] Thus, strategies that decrease time spent on these nonclinical responsibilities

can effectively increase the clinical availability and effectiveness of all pediatric physicians. Providing medical home–based, comprehensive care also would improve clinical effectiveness by increasing the pediatrician's ability to provide the full range of services needed for optimal child health. However, current payment systems do not adequately provide for the expanded team necessary to provide comprehensive care in a medical home for children that support all of the services needed by the pediatric care team. Payment mechanisms should be developed that support all members of the pediatric care team, including case managers and social workers. Inadequate payment for services provided by pediatricians and other members of their medical home team creates a barrier to providing the full range of pediatric services needed for optimal child health. For example, states with lower payment levels for vaccine administration also have lower rates of age-appropriate vaccination.[28,29]

Children who are uninsured or underinsured are less able to obtain care.[23] In addition, uninsured children create a greater demand on the sector of the pediatrician workforce that provides inpatient and emergency department care, because these children lack access to preventive care services, which can decrease the need for hospitalization and emergency department visits. Thus, decreasing the number of children who are uninsured or underinsured is a critical pediatrician workforce issue. When families lack adequate insurance coverage and cannot afford preventive and acute care services, pediatric physicians may not be able to establish and maintain an economically viable practice, and young physicians may be dissuaded from choosing a career in pediatrics.

PEDIATRIC GME AND ACCESS TO CARE

Because appropriate care for children requires primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists, the availability of training positions to meet all of these needs is critical. Limited funding for pediatric GME, including fellowship training, will decrease the availability of training opportunities in pediatrics and lead to a decrease in the number of graduating residents available to meet the demand for care.[30]

To increase the number of pediatric medical subspecialists and maintain the supply of primary care pediatricians, the number of general pediatric residency positions needs to be increased, because most physicians wishing to pursue a career in a pediatric medical subspecialty must first complete a general pediatric residency. Without increases in general pediatric residency positions, there will be insufficient graduates to meet the demands for both pediatric medical subspecialists and primary care pediatricians. Indeed, the percentage of pediatric residency program graduates planning careers in general pediatrics has declined from 68% in 2000 to 61% in 2010, whereas the percentage interested in pursuing a career in a pediatric medical subspecialty has increased from 23% in 2000 to 33% in 2010.[31] Thus, the need to increase entry into pediatric medical subspecialty careers will adversely affect the number of primary care pediatricians, unless the total number of general pediatric residency positions is increased. In contrast, the availability of general pediatric residency positions does not affect pediatric surgical specialists, because they begin their training in surgical residencies.

Many hospital regions in the United States lack pediatric medical subspecialists and surgical specialists, and primary care pediatricians report difficulty obtaining pediatric medical subspecialty and surgical specialty care for their patients.[32] The shortage of mental health subspecialists (eg, child psychiatrists, developmental/behavioral pediatric specialists) is especially critical, because it is estimated that approximately 21% of children in the United States meet criteria for a mental health disorder.[33] It is imperative, therefore, that GME funding initiatives designed to increase interest in primary care do not erode entry into pediatric medical subspecialties and surgical specialties. Health policy changes designed to address the shortage of primary care physicians for adults by dissuading entry into adult subspecialties should not be extended to pediatrics. In addition to geographic disparities in the availability of pediatric medical subspecialists, there is wide variation in both the supply and demand among the various pediatric medical subspecialties. For example, the population-weighted average distances to care range from 15 miles for a neonatologist to 78 miles for a pediatric sports medicine specialist.[34] In addition, data from 2003 to 2006 suggest that increases in the number of pediatric medical subspecialists may not address maldistribution, because pediatric medical subspecialists and surgical specialists tend to enter practice where similar physicians already practice, with few entering new markets.[35] Thus, increased GME funding for pediatric medical subspecialty training should be targeted to the subspecialties experiencing the greatest shortages and incentivize subspecialty practices that provide care for children who are currently underserved by subspecialists, including children living in poverty as well as those living in small and rural communities.[34,36] Without increases in GME funding, the current shortage of pediatric medical subspecialists is likely

to worsen. Pediatric medical subspecialists also spend less time than generalists in direct patient care, averaging 33.7 hours per week for those working full-time and 21 hours per week for those working part-time, compared with an average of 42 hours per week for full-time generalists and 25.7 hours per week for part-time generalists.[8] Because most pediatric departmental teaching faculty members at academic centers are pediatric medical subspecialists, a shortage of pediatric medical subspecialists not only affects patient care but also adversely affects the ability to train pediatric residents and conduct research. Indeed, a sufficient number of academic pediatric physician faculty members in all medical and surgical disciplines is required to adequately train the future pediatrician workforce, and the demand for academic pediatricians is likely to increase with the increase in primary care training positions and medical school enrollment.

Payment inequities between those who provide care for children and those who provide similar care to adults can provide a significant disincentive for physicians to choose pediatric careers.[37,38] This lack of parity in payment affects all fields of pediatrics, including (but not limited to) primary care, pediatric medical subspecialties, pediatric surgical specialties, and other pediatric physicians, such as pediatric radiologists, pathologists, and others. Even among pediatric medical subspecialties, significant differences in payment and, thus, salary potential exist. These differences lead to greater workforce shortages in some pediatric subspecialties compared with others. The supply of pediatric surgical specialists and many pediatric medical subspecialists is not adequate to meet the needs of children, especially those with complex health problems. If pediatric surgeons and medical subspecialists continue to be paid less to provide care for children than physicians who provide similar care for adults, there will be a financial disincentive for graduating residents to pursue pediatric surgical or subspecialty careers.[39,40]

WORKFORCE POLICY ISSUES

The pediatrician workforce is influenced by health care policy decisions made at the local, state, and national levels. Thus, the AAP is committed to actively participating in policy development with both professional organizations and governmental bodies to ensure that these deliberations have a pediatric perspective. Pediatrics is unique among the primary care specialties for having strong trainee interest in the field over the past decade, but the nature of pediatric practice is rapidly evolving because of changes in gender mix, patient mix, and work format. Market forces, including changes in health care and medical education financing, affect both the workforce supply and need for health care. The state-to-state variation in payment for pediatric care adversely affects pediatric physicians and makes recruitment of pediatric physicians difficult, especially in underserved communities, where payment is often inadequate.

Additional research is needed to more fully understand the effective supply of all types of pediatric physicians, adjusting for clinical productivity as well as the current and anticipated needs of our communities. The AAP does not believe that simply increasing the number of pediatric physicians or increasing their pay will address all the pediatrician workforce issues discussed in this statement. Indeed, many of the issues that result in workforce shortages and geographic maldistribution must be innovatively addressed, including renewed emphasis on recruitment incentives for physicians who practice in communities and fields where there is the greatest need, payment parity between physicians who care for adults and those who care for children, loan forgiveness, and stable GME funding for children's hospitals that train most pediatric medical subspecialists and surgical specialists. The current health care reform effort has reinforced Title VII of the Public Health Services Act (health professions education) and the National Health Service Corps, but ongoing support of these programs is essential to improving access to primary care for many underserved populations. Greater attention to pediatrician workforce planning can help reduce geographic disparities and ensure that the proportion of pediatric residents who choose either generalist or subspecialist careers is adequate to meet the demands for clinical care as well as the needs for future academicians and researchers in pediatrics.

SUMMARY

The AAP concludes that there is currently a shortage of pediatric medical subspecialists in many fields, as well as a shortage of pediatric surgical specialists. In addition, the AAP believes that the current supply of primary care pediatricians is inadequate to meet the needs of children living in rural and other underserved areas. In the future, more primary care pediatricians will be needed to care for the increasing number of children who have significant chronic health problems and who will require more medical and surgical care from pediatric physicians throughout their childhood. In addition, there will be an increased demand for general pediatricians because of the decrease in the number of family physicians providing care for children and the limited number of nonphysician clinicians interested in pediatric careers. Other factors that are expected to

increase the demand for general pediatricians include changes in physician work hours and implementation of current health reform efforts that seek to improve access to comprehensive patient-centered care for all children in a medical home. Thus, although primary care pediatrics is currently experiencing sustained interest as a career pathway, many factors reviewed in this statement lead to the conclusion that the United States must increase the number of general pediatric residency program graduates to increase the supply of pediatric medical subspecialists and maintain the current supply of primary care pediatricians. Payment structures should be revised to allow pediatric physicians to provide quality care to all children, including the increasing number of children with chronic health conditions. Without adequate payment, general pediatricians are unable to provide the full range of services needed for optimal child health within a patient-centered medical home, and recruiting physicians into medical fields that focus on children will remain challenging because of payment inequities. The AAP maintains that current health care reform efforts that seek to improve access to comprehensive, patient-centered care for all children cannot be successful without an adequate pediatrician workforce to provide such care. All adults once were children, and healthy children who grow to be productive adults are critical to our nation's growth. Therefore, the provision of optimal care to the nation's children is an investment in our nation's future. On the basis of review of these known and evolving factors, the AAP is committed to the following:

STATEMENT OF PRINCIPLES

1. Infants, children, adolescents, and young adults must have access to sufficient numbers of appropriately trained primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists to achieve their optimal health and well-being. The AAP believes that the current pediatrician workforce is not meeting the primary care, subspecialty, or surgical needs to provide quality health care for US children and that critical workforce shortages exist in pediatric medical subspecialties and pediatric surgical specialties. The AAP, working collaboratively with other appropriate groups, should advocate for and participate in professional and governmental efforts to achieve a sufficient, balanced pediatrician workforce and encourage members and AAP chapters to do the same.
2. The AAP is committed to participating in national, state, and local efforts to address workforce issues to ensure that the unique needs of the pediatric population and the pediatrician workforce to care for them are addressed in health care policy and legislative efforts.
3. The AAP is committed to promoting pediatrics as a career choice to medical students and residents and to appropriating funding for pediatric GME programs, general pediatric and pediatric subspecialty training positions, academic faculty, and long-term GME funding for children's hospitals.
4. The AAP is committed to advocating for initiatives that support and encourage careers in pediatric medical subspecialties, including funding for the Children's Hospitals GME program and the pediatric subspecialty loan forgiveness program.
5. The AAP is committed to advocating for the needs of children in any initiatives to recruit or train medical students and residents in specific disciplines and/or geographic regions.
6. The AAP is committed to supporting programs that address maldistribution of the pediatrician workforce, such as Title VII health professions education funding, National Health Service Corps, and incentives to enter pediatrics, such as loan forgiveness programs and tax credits.
7. The AAP is committed to promoting flexible practice environments and providing resources for pediatricians interested in part-time practice or desiring to reenter the workforce so that they will have increased opportunities to practice and, thereby, maximize the number of pediatricians in clinical practice.
8. The AAP is committed to supporting and/or coordinating activities to encourage recruitment into pediatric surgical specialties.
9. The AAP is committed to working to achieve parity in payment so that physicians who care for children receive the same payment for similar services as physicians who care for adults.
10. The AAP is committed to working to reduce geographic and socioeconomic barriers that prevent children from obtaining access to appropriate primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists. This includes appropriate insurance benefits for patients, adequate payment of physicians, and oversight by governmental agencies of public and private insurers to ensure access to care.
11. The AAP is committed to increasing the diversity, cultural effectiveness, and multilingual skills of the

pediatrician workforce to meet the needs of an increasingly diverse child population.

12. The AAP is committed to promoting research regarding the changing pediatrician workforce. This research should examine the current supply and future needs for pediatric physicians by geographic area. It should also monitor changes in demand for pediatric care as a result of (1) the changing demographics of pediatric patients, (2) the changing demographics of pediatricians, and (3) modifications in health policy that will influence both patients and physicians.
13. The AAP is committed to promoting comprehensive, high-quality health insurance coverage for all infants, children, adolescents, and young adults, which should be the right of every child.

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