

# The Future Pediatric Subspecialty Physician Workforce: Meeting the Needs of Infants, Children, and Adolescents

## Supporting the Physician-Scientist Pathway

Advances in pediatric research are central to improving the lives of children through evidence-based care delivery. Pediatric physician-scientists play a critical role in pursuing such research and are a key bridge between researchers and clinicians. Unfortunately, there are substantial disincentives to pursuing a pediatric research career that can impact both recruitment and retention efforts.

The Consensus Study Report *The Future Pediatric Subspecialty Physician Workforce: Meeting the Needs of Infants, Children, and Adolescents* recommends strategies and actions necessary to ensure an adequate pediatric subspecialty physician workforce—one that can support broad access to high-quality subspecialty care and a robust research portfolio to advance the health and health care of infants, children, and adolescents. Specific efforts are needed to improve entry into research careers and foster early stages of career development, especially for pediatric physician-scientists from populations underrepresented in the scientific workforce.

### RECOMMENDATIONS

#### Establish a Data Repository for the Pediatric Physician-Scientist Workforce

It is difficult to fully characterize the pediatric subspecialty physician-scientist workforce due to data limitations and lack of coordination between funders and other relevant parties. Increased communication and collaboration among these groups can help support pediatric physician-scientists and forge new paths

in clinical trials, drug discovery, and health services research. While career development programs have improved retention in the research workforce, more evidence is needed to inform future efforts to support careers in pediatric research specifically.

With appropriate additional funding, the National Institutes of Health's (NIH's) Pediatric Research Consortium, with leadership from the National Institute of Child Health and Human Development and input from NIH's Scientific Workforce Diversity Office, should engage with other government and nongovernment pediatric research funders to create and maintain a publicly available central repository for data on pediatric physician-scientists' funding and success. This repository should track attrition rates and develop new measures as necessary to understand the initial success and retention of pediatric physician-scientists. The Association of Medical School Pediatric Department Chairs should provide supplemental data as needed. Examples include:

- Quantitative data on the funding rates of career development and subsequent awards and the tracking of research careers by demographics, topic/subspecialty, and professional background of the principal investigator
- Qualitative data on successful researchers and those who leave the research track, including quality of mentor relationships; types of support received

from their institutions; availability of statistical, epidemiologic, academic, and grant writing training and support; availability of funding to present and publish research; satisfaction with career progression; and reasons for attrition or retention

#### **Increase and Target Career Development Grants for Pediatric Researchers**

Career development grants and loan repayment programs are important for the retention of early career investigators in the research workforce and may be especially important for pediatric subspecialty physician–scientists. Those engaged in research without career development awards may struggle to allocate sufficient time for investigation, leading to an increased burden of professional responsibilities and risk for burnout. NIH and the Agency for Healthcare Research and Quality should increase the number of career development grants, particularly institutional training awards. Specific attention should be given to providing these grants to physician–scientists from backgrounds that are underrepresented in the scientific workforce and to high–priority subspecialties in pediatric research. Current funding amounts for early career awards do not provide

adequate support for investigator salary, mentorship, or research project expenses, thereby creating financial stress for institutions and departments, which are expected to cover the financial gaps. Therefore, funding for awards should be increased to reflect current salaries and research project expenses and should include additional explicit funding for mentorship.

#### **LOOKING FORWARD**

The robustness and endurance of the pediatric physician–scientist workforce pathway can have long–lasting effects across the lifespan, yet the current system for producing and nurturing this workforce is inadequate. Challenges include a paucity of objective subspecialty–specific workforce data; lack of a robust mentorship environment, particularly for early career investigators; financial considerations that affect trainees’ decisions to pursue research; lack of dedicated research time and competing clinical responsibilities; and inadequate and uncoordinated research funding. Coordinated data collection and increased, targeted career development awards will help support this critical component of the pediatric workforce and ultimately improve the health and well–being of infants, children, and adolescents.

To download a free copy of the full report and other resources, visit [www.nationalacademies.org/pediatric–subspecialties](http://www.nationalacademies.org/pediatric–subspecialties).

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