



Challenges of Funding Pediatric Fellowship Programs—Invited Commentary from the Council of Pediatric Subspecialties

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Funding for pediatric subspecialty fellowship programs has become increasingly difficult given the recent changes in healthcare reimbursement that are decreasing the financial support available for education. In contrast to the full funding of core residency programs, the Centers for Medicare and Medicaid Services (CMS) reimburse subspecialty trainee positions at 50% of the core level.¹

Most hospital-based programs, such as neonatology/perinatal medicine, critical care medicine, and pediatric emergency medicine, receive hospital or graduate medical education (GME) support for some or all of their trainees.² In many fellowship programs, pediatric departments must provide the direct and indirect costs of training. The expense of training a pediatric subspecialist through a 3-year training program can exceed \$250 000 per fellow.

Approximately 20% of fellowship programs seek support from extramural sources, such as foundations, subspecialty societies, and other organizations.² Importantly, the CMS provides no financial support for the research training necessary to facilitate the career development of physician scientists and to meet the American Board of Pediatrics' (ABP) requirement for scholarly activity. Furthermore, National Institutes of Health (NIH) institutional training grants for early career development have become exceedingly competitive.³ Although valued by departments and institutions, these NIH grants do not include financial support for the program directors or dedicated mentors. An additional and substantial financial burden is the recent Accreditation Council for Graduate Medical Education (ACGME) requirement that pediatric fellowship program directors (FPDs) "must be provided" 20%-35% full time equivalent support to administer the program, which offers an additional challenge to sustain subspecialty fellowship programs within hospitals and departments.⁴ In this commentary we briefly review the issues and describe potential approaches to providing support for FPDs, funding fellowship positions, and covering trainee expenses.

FPD Support

FPDs are responsible for program administration, adherence to ACGME requirements, and curriculum design to maintain accreditation and provide comprehensive training. Historically, the ACGME required that FPDs have "sufficient protected time," without providing specifics. In 2016, the Association of Pediatric Program Directors (APPD), in collaboration with the Council of Pediatric Subspecialties (CoPS), conducted a survey of FPDs and found that few had suffi-

cient protected time to effectively fulfill their administrative and educational responsibilities. The median time that FPDs were able to dedicate to their programs varied by program size, ranging from 10% to 25%. Based on the FPDs' estimated time needed to effectively administrate the program, the study suggested that this time allotment be increased to 20%-35%, which the ACGME adopted as a requirement for program administration in September 2017. Although the amount of protected time for pediatric FPDs has increased, it still falls short of that required in other fields, such as internal medicine, which requires support of 25%-50%.⁴

The new requirement for FPD protected time poses challenges for pediatric department leadership and hospitals. Funding for FPD administrative time may be covered by the hospital, the GME program's allocation of "educational funds," medical school support, and departmental allocations, including clinical revenue and other discretionary resources under the prerogative of the department chair. Because of the modest funds available for program administration, department chairs must make difficult decisions to support departmental programs that are congruent with each chair's vision and educational mission. If training subspecialists in certain areas remains a priority, department chairs may need to shift funding from other areas to support the FPDs so that programs can succeed. Chairs may be able to negotiate additional support from the hospital, particularly if the department chair can convince hospital administration that the fellows have a major role in the provision of clinical services. However, financial models vary across programs, so common funding strategies might not apply equally across institutions. In an environment of declining reimbursement, with pediatrics dependent on Children's Health Insurance Program (CHIP) and Medicaid support, protecting the time of FPDs becomes even more problematic.

Internal medicine departments have made a conscious decision to support FPDs at the 25%-50% level, so perhaps we can learn from their efforts. Although a few reports have documented the positive impact of increasing training director

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support,⁵ information is lacking on the details of how departments meet these levels of funding. Personal communication with GME offices reveals that some programs rely on clinical revenues to support FPD time.

Department chairs are concerned about the costs of implementing this ACGME requirement, which in some large departments may exceed \$1 million annually (AMSPDC, unpublished data). Proposed solutions under consideration, although certainly not appealing, include decreasing the number of fellowship positions supported by the department and eliminating some training programs completely. However, this may run counter to the present and future workforce needs of the department and the nation. The protected time can be shared by the program director, associate program director, and/or other faculty members of the program leadership. The latter might include a director of fellowships or “super-fellowship” program director. However, the ACGME specifically excludes the time spent by a program coordinator or other administrative personnel to help administer the program. Research grant funding cannot be used to support FPD protected time. Centralizing administrative support with a small team of program coordinators that oversees all fellowship programs within a department decreases the overall personnel costs and improves the efficiency and consistency of administrative efforts.⁶ Additional strategies to decrease the overall costs of programs, specifically salary support for trainees, are considered below.

Funding of Fellowship Program Positions

Fellowship training currently costs programs from \$85 000 to more than \$100 000 annually per fellow, based on salary, benefits, and educational expenses. Some programs, such as those in San Francisco, provide a housing supplement (currently ~\$12 000 annually) to help offset the high cost of living in the area (Table; available at www.jpeds.com). Indirect costs to pediatric departments, such as program development, faculty development, and program coordination, also add to the costs of training subspecialty fellows.

Despite these funding challenges, the number of trainees in pediatric subspecialty programs has increased over the past 2 decades, albeit mostly in a few specific subspecialties. Moreover, increasing numbers of categorical pediatric residents are pursuing subspecialty training. The greatest numbers of fellows in 2017 were in the pediatric subspecialties of neonatology/perinatal medicine (773), critical care medicine (531), emergency medicine (517), hematology/oncology (498), cardiology (454), and gastroenterology (306).⁷ These programs are all hospital- or procedure-based and may have greater potential for hospital funding compared with such subspecialties as rheumatology, nephrology, developmental/behavioral pediatrics, child abuse, and adolescent medicine that generate less income for hospitals.²

The available options for meeting the funding needs of training programs are relatively limited. Much of the financial support for fellow training arises from the hospital, department, and/or the local GME program, and support is often linked to clinical revenues. In subspecialties with fewer

procedures and less clinical revenue, program support from the hospital or department must be more strategic and linked to local or department subspecialty needs. Support for research training during fellowships is the least robust. In most programs, the primary source of funding for the scholarship requirement and academic career development is from pediatric departments.² Additional support for educational resources is derived from the hospital or GME, extramural grants (eg, T32 awards), disease- or research-specific foundations, or philanthropy.

Strategies to cover the costs of fellows’ salaries and educational resources include collaborating with adult T32-supported programs to add a pediatric position to their research training programs and recruiting trainees whose salaries are covered by the military or foreign government agencies. Other potential sources of trainee support include subspecialty or disease-specific organizations (eg, Cystic Fibrosis Foundation, American College of Rheumatology, Arthritis Foundation, St Baldrick’s Foundation, Children’s Cancer Research Fund), philanthropy, government agencies (eg, Maternal and Child Health Bureau), pharmaceutical companies, and community organizations.

Trainee Expenses

Residents who opt to pursue fellowship training can experience significant financial challenges, including delays in repaying education loans, disruptions in family life, and lifetime reductions in earning potential or retirement funds. Some financial analyses of pediatric subspecialties have suggested that the time spent in training and future salaries does not justify fellowship training in many pediatric subspecialties from an individual fiscal perspective.⁸ Pediatric residents’ choice of subspecialty may be driven in part by the amount of education debt; for example, more residents with significant debt choose pediatric hospital medicine compared with other career options.⁹ The effect on resident career choices of the ABP’s recent approval of hospital medicine as a 2-year fellowship is unclear. How to attract trainees to areas of workforce need, such as nephrology, rheumatology, pulmonology, child neurology,¹⁰ developmental/behavioral pediatrics,¹¹ and others will be increasingly challenging, given the rising costs of education and the significant education debt incurred by many trainees.

By the time that pediatric fellows complete their training, they have not only educational debt, but also substantial family debt. Furthermore, fellows face the costs of multiple board examinations and moving expenses as they begin their academic or practice careers. Support of loan repayment programs, such as one included in the bill “Ensuring Children’s Access to Specialty Care Act,” would be important to address this debt and to combat pediatric workforce shortages.

To help alleviate trainees’ angst, accurate data on trainee debt and postfellowship reimbursement (salary and recruitment packages) should be made available to department chairs, FPDs, and trainees. These data will inform the recommendations of

the workforce action plan that is being developed through a collaboration of CoPS, APPD, American Academy of Pediatrics, and ABP. Trainees would also benefit from a national clearinghouse that accurately describes the resources available to them. This should include information regarding eligibility requirements for education debt/loan repayment programs, such as the NIH or National Health Service programs, as well as accurate and timely advice regarding typical recruitment packages.

Conclusion

CoPS is actively engaged with the AAP, APPD, AMSPDC, and ABP, among other agencies, on a workforce agenda to address the foregoing workforce concerns among pediatric subspecialties. This information will also aid governmental and

other agencies in identifying supplemental funding to support fellowship programs. These ongoing workforce initiatives will provide accurate data regarding local and regional workforce needs, which will aid departments and FPDs in training the appropriate number of subspecialists to meet workforce needs. Organizations such as the NIH, AMSPDC, American Pediatric Society/Society for Pediatric Research, and others with a vested interest in training pediatric subspecialists should help identify solutions to these complex funding issues to ensure that the nation's children have adequate access to well-trained and competent pediatric subspecialists. ■

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Table. Example of shortfall of funding for a T32-supported trainee: second-year gastroenterology trainee costs, 2017-18

	Cost
Second year GI trainee costs (2017-18)	
PL5 level stipend	\$64 556
Housing supplement (SF requirement)	\$12 100
Benefits—health insurance	\$10 000-32 000
Travel	\$1000
Training expenses (variable)	\$0-\$20 000+
Total trainee costs (variable)	\$87 656-\$129 656+
Funding sources	
T32 (NRSA institutional postdoctoral training grant)	\$52 140
T32 institutional support	\$8850
Shortfall derived from department/division sources, including endowments, philanthropy	\$26 666-\$68 666+

NRSA, National Research Service Award.
The T32 is awarded to institutional programs to support fellowship research training; institutional support from T32 (\$8850/trainee in 2017 assigned to the T32) does not cover all of health insurance.

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