

Funding Subspecialty Fellowships in Internal Medicine

In recent years, subspecialty training in internal medicine has enjoyed a resurgence in popularity. There are significant regulatory constraints on the total number of subspecialty fellowship positions and it is often difficult to increase the number of positions offered. Efforts to increase training positions for subspecialties that can demonstrate significant or projected workforce shortages are ongoing.

Financing fellowships is a major limitation to the expansion of subspecialty fellowship positions. Many fellowship programs find it difficult to fund all years of accredited fellowship training. Solutions to these fiscal problems are complex and exert major influences on the design of individual training programs, including the duration and the content of the curriculum. Discussion of these issues will hopefully shed light on how to approach the problem of funding and the impact such decisions have upon the nature of fellowship training.

Fellowship programs are sustained by a “patchwork quilt” of funding from a wide variety of federal, institutional, and private sources. With 51.59 percent of medical school-based departments of internal medicine responding (65 of 126), the 2005 Administrators of Internal Medicine-Association of Professors of Medicine Statistical Survey illustrates this point (Table 1).

Table 1
Results of the 2005 Administrators of Internal Medicine-Association of Professors of Medicine Statistical Survey

	Number of Medical School-Based Departments Reporting Receipt of Fellow Funding from the Following Sources:	Percent of Fellows These Departments Fund from the Following Sources:
Campus Hospital	56	48
Community Teaching Affiliates	36	25
Clinical Revenue	37	20
Department of Veterans Affairs	43	25
National Institutes of Health	37	14
Other	37	14

Much attention has been focused on the financing of salaries and benefits for fellows. However, the other costs of fellowships—particularly faculty time for teaching, recruitment costs, and costs for evaluation—must also be considered. It is likely that funding will continue to be affected by conflicting national estimates of future needs in the physician workforce. Not knowing which statistical models to trust, policymakers continue to deliberate fundamental changes to the funding system.

Such deliberation, when tied to increasing deficits and debts, ensures that federal funding alone—whether from the Medicare program, the Department of Veterans Affairs (VA), or the National Institutes of Health (NIH)—will not soon repair or replace the patchwork quilt of financing. Some changes may provide small fixes, including efforts to increase the full-time equivalent count of fellows from 0.5 to 1.0 for purposes of Medicare direct medical education payments (i.e., equating fellows with residents in terms of reimbursement) and the VA's plans to realign its funded positions with primary care production. However, even such changes are years from reality.

Selecting Applicants for Fellowships

Several subspecialties have traditionally drawn upon an applicant pool containing a substantial percentage of international medical graduates (IMGs). The percentage of fellows who are US medical school graduates has gradually increased in many subspecialty disciplines, partially because of immigration and visa limitations, but also due to an increased interest among internal medicine residents (1). Although the reasons for the mix of international- and US-trained fellows are complex, visa status may affect both selection of fellows and funding opportunities since federal training grant stipends are restricted to US citizens or resident aliens. This restriction influences many training programs to not consider applicants with J-1 visas. This chapter will discuss how such funding decisions shape the character and duration of fellowship training programs as well as influence educational and curriculum issues.

Current Statistics

In 2003-2004, 1,454 approved internal medicine subspecialty training programs were available in 16 disciplines. Within these training programs, 8,770 fellows occupy the 9,902 approved positions (1). Since there are approximately 1,100 unfilled positions, one might conclude that there are plenty of opportunities to train additional subspecialty fellows. Although the most popular subspecialties do have open or unfilled positions, the numbers can be deceiving. Unfilled positions may be explained by an insufficient applicant pool or inadequate funds to support salaries each year. Fellows occasionally exit the program or do not begin programs for personal reasons. A large percentage of accredited fellowship programs are based in medical school-affiliated hospitals, but affiliations vary, depending on the subspecialty. The degree of academic affiliation and, more importantly, the presence of established research programs exert strong influences on the funding mechanisms and duration and nature of the fellowship training offered.

Fellowship Positions Funded with Federal Support

Some elements of fellowship funding are common to all programs; other elements remain heterogeneous. In general, Medicare funds supply a number of salaries for residents and fellows in accredited programs, and decisions by medical center leaders dictate the number and distribution of these funds among the medical subspecialties. In research-oriented programs, these allocated salaries are generally utilized for a single, intensive clinical year. Some subspecialties receive no such support whatsoever, which is untenable since funding for fellowship salaries is limited and competes with funding for residents in internal medicine and other specialties. Subspecialty programs could utilize Medicare-funded positions to fund the second year of fellowship as well. However, such a decision requires residents to remain clinically focused, a shift in emphasis for programs that have historically used the second year for research training.

If the medical center allocates fellowship salaries only for an intensive clinical year, how are the funds generated for the additional years of a two- or three-year fellowship? In research-oriented training programs, NIH training grants are often the major sources for additional years of funding. Obtaining such training grants for research is a highly competitive process and limits non-research or clinical time during the funded years.

In addition, producing meaningful research achievements realistically requires two years. If fellowship programs use NIH training grant funding for a single year of research, this brief experience does not constitute a valid research experience, and so the principal investigator may find that such grants are not renewed and therefore lost as a funding source. The net effect is that these programs require a fellowship three years or longer in duration to sustain this research funding by supplying a minimum of two years of research with funding supplied by the federal training grant.

Clinical medicine is permitted during the research training, but limited to 10 percent (often a half-day clinic per week or coverage during vacations for the more clinically active fellows). Federal research support also demands citizenship or resident alien status to qualify for the NIH training grants. Individual NIH-funded National Research Service Awards fellowships can be utilized, but this requires an application and commitment to a research direction and laboratory quite early in the first clinical fellowship year.

Fellowship Positions Funded with Private Contributions

A second potential mechanism is to seek research fellowship support from private sources, such as industry or philanthropic organizations.

Corporations with commercial interests in specific clinical areas (such as pharmaceutical or medical device companies) may provide research fellowship funding but often by a less

formalized and predictable mechanism. The pharmaceutical industry has an interest in having well-trained subspecialists to conduct clinical research, and industry relies on the results of basic research generated by divisions within departments of internal medicine. However, industry support comes with potential conflicts of interest. Support at the margins, which includes sponsoring a lecture series or a visiting professor, can benefit a program and the sponsoring company. Unfortunately, there is always a question about a potential quid pro quo—a pharmaceutical presence in a program influencing fellows' prescription practices. Programs constantly need to be aware of the hidden consequences of pharmaceutical support.

Many philanthropic or charitable organizations provide support for fellowship positions. For example, the National Kidney Foundation, the American Kidney Fund, and the American Heart Association are prominent sources for research fellowship support in nephrology. These mechanisms of support provide a potential advantage for some fellows; they do not require US citizenship or resident alien status. Local charitable organizations or chapters of national organizations may supply competitive yet smaller training grants to local institutions, providing subspecialty divisions greater flexibility to select fellows without individual applications.

Fellowship Positions Funded with Clinically Derived Funds

The last, critically important, alternative for fellowship support is clinical revenue. In fellowship programs with little or no research activities, research training grants are not a realistic option. There may be no other alternative to using clinical income to fund fellowships, particularly in the second and later years. Such a decision may involve sacrifices to faculty income, but this could be considered a fair tradeoff. In general, there is considerable heterogeneity in budgeting practices. In instances where clinical income, after overhead, is allocated to subspecialty divisions, such income may be used to fund fellow salaries. In other institutions, clinical income is very tightly controlled by the department of internal medicine or medical center, reducing a division's flexibility in these decisions.

The department or medical center may allocate significant funds for fellow salary support. However, taxation of divisional income or increased overhead charges may actually provide the funds for these fellow salaries and the division head may be unaware of the basis for such "generosity." As is true for business and economic pursuits in general, "there is no free lunch." If the medical center supplies multiple years of fellowship salary in exchange for clinical functions, it is likely that divisional clinical income is paying for it, either through taxation or other methods of reducing net return on collections. The bottom line is that clinical income is often utilized to pay for some or all years of fellowship, and this funding usually modifies the obligations of the fellow in some way.

Divisions that fund large numbers of fellows from clinical income usually have relatively large clinical incomes, and the corresponding clinical demands may be passed on to the fellows involved, resulting in a net increase in clinical (versus research) activities. For example, in nephrology, large dialysis patient populations may provide revenue to fund additional fellows. However, the associated cost may be additional rounding time in hemodialysis units, which may reduce the overall balance of clinical, educational, and research activities within the training program. If division heads or department chairs realize that there is a growing clinical discipline within a division providing large net incomes to the medical center, it is often wise to petition for additional funding of fellows to support that clinical enterprise.

Conclusion

In summary, adequate funding of subspecialty fellows is often not provided by medical center or departmental resources, requiring the division to seek alternative funding streams. Options include research-based training grants and clinically derived income. Solving these financial issues affects the nature and direction of the training program, particularly with regard to the duration of training and the distribution of educational, research, and clinical activities.

Leaders of subspecialty division and departments need to be increasingly adept at assembling multiple sources of support because the current funding crisis will likely remain for the foreseeable future. National organizations—such as the Association of Subspecialty Professors and the Alliance for Academic Internal Medicine—are making the identification and strengthening of funding sources for internal medicine fellowship programs a top priority.

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