Career Planning for Pediatric Residents

Herbert T. Abelson, MD*; Laurel Blewett*; and Walter W. Tunnessen, Jr, MD‡

ABSTRACT. After having made decisions about college, medical school, and specialty training, some residents may delay consideration of their future career in pediatrics. Others, having decided what path they will pursue, are not clear as to what steps need to be taken to ensure that they approach their choice armed with the most appropriate and accurate information.

Residents seek career choice information from various sources. For many, the resources may not be able to provide as complete information in all facets of career decision-making.

An Internet accessible site for career planning for pediatric residents has been developed (www.ucch.org/residency/CareerPlanning.html). The advantages, beyond ease of access by all residents, are many, particularly the power of links to other Internet resources. In addition, a website provides the ability to rapidly update and add information, which is not feasible in printed form.

PEDIATRICS 2001;107(5). URL: http://www.pediatrics.org/cgi/content/full/107/5/e65; career planning, pediatric residents, jobs, private practice, pediatric specialties.

ABBREVIATIONS. PL, pediatric level; NIH, National Institutes of Health; ACGME, Accreditation Council for Medical Education; FREIDA, Fellowship and Residency Electronic Interactive Database Access.

The following information was compiled to assist pediatric residents in making career choices. The discussion will include items to be considered in choosing careers in practice, pediatric subspecialties, or other areas. Sources of information, including links to Internet sources, are also presented and will be periodically updated (www.ucch.org/residency/CareerPlanning.html).

WHEN TO START PLANNING

Career planning should begin in the pediatric level (PL)-1 year as each rotation is checked for goodness-of-fit with one’s personal goals and aspirations. The problem, of course, is that the PL-1 year begins with insecurity about basic knowledge and performance, demands a steep learning curve related to new responsibilities and environments, and requires an exploration of new relationships with fellow interns and other residents. Sleep deprivation, postcall challenges, and the overwhelming desire to avoid an onerous mistake leave little time for introspection and testing of training experiences. This is unfortunate, because half of the year may go by before a new PL-1 feels comfortable enough to really explore her/his future plans, and significantly more time may transpire before anyone else begins to ask whether career plans have been considered.

It is the responsibility of the training program to initiate career-planning discussions for each of its trainees. This process should begin during the PL-1 year and continue through the PL-3 year. There are numerous ways that planning can be fostered (eg, in semiannual meetings with the program director to review the trainee’s progress, in regular meetings with a faculty advisor, in housestaff meetings that are focused on career planning, and in meetings with the department chairperson).

Making personal choices about career directions is difficult. Many residents express that they “always wanted to be a doctor” and that they “love children.” There also may be siblings or parents who are physicians, making the choice of a career in medicine almost inevitable. Now, however, the individual must come to grips with the reality of exploring her/his own career direction within medicine and pediatrics. It is very important to emphasize that the individual must take control of this process. Well-meaning friends, colleagues, parents, and program directors often will make suggestions about career directions that they believe are perfect for an individual, but which may, in fact, have nothing to do with the individual’s own goals or dreams. Although some individuals would like to see divine intervention direct them toward a specific career, they ultimately have to decide what is in their best interest, not what someone else thinks is the right thing for them to do.

Postpediatric residency careers can take many different directions. Some of the most popular options include private practice (in all varieties from solo practice through large health maintenance organizations or other managed care organizations); additional training in general academic pediatrics; Robert Wood Johnson fellowship training; pediatric subspecialty training; basic science training; Epidemic Intelligence Service; Public Health Service; Indian Health Service; advanced degrees, such as a Masters of Public Health; and other specialty activities, such as neurology, psychiatry, pediatric anesthesiology, radiology, and National Institutes of Health (NIH) fellowships.
PEDIATRIC PRACTICE

The American Academy of Pediatrics has excellent and diverse information about pediatric careers. This site should be consulted as an essential part of career planning. It can be accessed at: http://www.aap.org/profed/career.htm and http://www.aap.org/profed/gmpew.

Because the majority of pediatric residents enter practice, this will be the first area of discussion. The following data are from a random sample of 497 third-year pediatric residents completing categorical programs in 1999.1

For 92% of those entering a general pediatric practice position and for 89% of those entering a subspecialty fellowship, the resident’s new position was his/her first choice. The majority (59%) of those entering general pediatric practice were heading to a solo or pediatric group practice. Residents entering general pediatric practice estimated they would see 32 patients per day, and they anticipated a starting salary of $93,238. Of those entering a subspecialty, 21% chose neonatology, 13% chose hematology/oncology, and 11% chose infectious diseases. Less than 1% of residents were entering a nonpediatric fellowship.”1

Residents also were asked what information or services they found helpful in their job searches. A total of 35% of residents reported that contacts they or their family had made were the most useful sources of information in their job search. An additional 18% said a residency faculty member was most useful, 14% said a peer was most useful, and 13% said direct contact from a practice was most useful. When residents were asked about other information or services that would have been helpful for their job or fellowship search, a central listing of job/fellowship opportunities was rated the highest”1 (Tables 1 and 2).

TABLE 1. Residents’ Postresidency Position: Percentage of Residents

<table>
<thead>
<tr>
<th>Position</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>General pediatric practice</td>
<td>52</td>
</tr>
<tr>
<td>Pediatric subspecialty fellowship</td>
<td>22</td>
</tr>
<tr>
<td>No job or position at this time</td>
<td>12</td>
</tr>
<tr>
<td>Chief residency</td>
<td>9</td>
</tr>
<tr>
<td>Other position</td>
<td>4</td>
</tr>
<tr>
<td>Nonpediatric residency or fellowship</td>
<td>1</td>
</tr>
</tbody>
</table>

Practice opportunities are multifaceted and range from solo practice through partnership or group practice to health maintenance organizations (staff model or group/independent practice association model) or various preferred provider organization arrangements. There are also additional options, such as hospitalists and locum tenens arrangements. Practice environments range from the inner city to neighborhood health centers, suburban practices, and rural locations. Part-time and shared practice opportunities are often available, as well as practice in night or after-hours clinics. Issues to consider when exploring possible positions include office hours, on-call schedules and coverage, hospital responsibility for inpatients, opportunities to recruit new patients (eg, through nursery coverage), salary, benefits, vacation and continuing medical education allowances, office management philosophy, parental leave and other special needs, licensure, cost of buy-in, partnership requirements, dissolution buy-out or restrictive clauses, and the specific expectations and philosophy of the practice. If it is a group practice, assess the stability of the group. If some physicians have left the group, find out why. It is also a good idea to spend a day or 2 with the practitioners at a site of interest to better understand their specific interaction, communication, and practitioner styles.

It is useful for both you and prospective employers to have a curriculum vitae or resume. In addition to the demographic material, it is particularly helpful to have a personal statement that describes your strengths and defines the kind of practice that you would like to join. In describing your strengths, you also will help define the value you bring to the practice. Characterizing the kind of practice opportunity that you desire will help crystallize these issues and make you more comfortable with your decisions.

There are a number of resources to use as one begins to look for private practice opportunities, including the classified advertisements in pediatric journals (such as Pediatrics, Journal of Pediatrics, The New England Journal of Medicine, and the Journal of the American Medical Association), postings at the various meetings sponsored by the American Academy of Pediatrics, and web sites such as:

http://www.pediatricjobs.com/
http://www.practiceline.com/
http://www.healthsearchusa.com/
http://www.medscape.com/
http://www.medbulletin.com/
http://www.nehealthsearch.com/
http://dir.yahoo.com/Business/Economy/Companies/Corporate_Services/Human_Resources/Recruiting_and_Placement/Career_Fields/Physicians/
http://www.nejm.org/classifieds/search.html
http://www.pediatrics.org/classifieds

and many other sites related directly to regions of the country, schools, etc. There are many good pediatric sites to visit for a wide variety of information, including job opportunities. They include:

http://www.aap.org/ (many links to other organizations)
http://www.ambpeds.org/
http://www.pedinfo.org/
Head hunters or hospital recruiters are usually seeking to fill specific positions, but these individuals may also have knowledge of other openings. Some pediatric programs may maintain a list of practice jobs in their area. Previous graduates of programs may also have knowledge of other openings. Some seeking to fill specific positions, but these individuals are not always contacted, because they may have additional information about openings.

**FELLOWSHIP**

The focus of the next discussion will be postresidency fellowship positions. Many of the pertinent issues are identical to those for private practice, but additional considerations include:

- How does one select a fellowship area?
- Who does one talk to?
- When does one start the process?
- What materials are available?
- Is there a computerized matching process?
- How does one arrange interviews and time off from resident duties?
- How does one evaluate a program?
- What is an appropriate salary/benefits package?
- What are the critical things to evaluate before making a decision?
- How is an offer tendered, and what does one need to do to accept?
- Are there policy and procedure issues that one should know about?

**How Does One Select a Fellowship Area?**

The basic premise here is no different from with private practice: the individual must assess his/her own interests, goals, and aspirations and consider current and future needs as well as his/her own skills. A great deal of input from others, as well as introspection, is required, but it is essential to select an area that satisfies one's own needs, not the well-meaning but perhaps misguided recommendations of colleagues. That is not to say that input from other residents, attendings, advisors, mentors, spouses, and friends is not important, but ultimately these decisions should be very personal, private choices because the individual will keep and live with them. What about fads or the current hot areas? Should one take the leap? The answer really depends on whether an area fulfills the criteria set by the individual to attain future goals.

Should one even consider a fellowship, given the fact that the major emphasis at present is on primary care? The answer is unequivocally yes if that is the direction of one's career interests and aspirations. Despite dire predictions, pediatric subspecialties are not dead or dying and, in fact, will probably make a resurgence in the near future according to the recent report "The Future of Pediatric Education: Organizing Pediatric Education to Meet the Needs of Infants, Children, Adolescents, and Young Adults in the 21st Century" and at http://www.aap.org/profed/fope1.htm. Most things in life have a cycle and rhythm, and career pathways are not an exception. The pendulum has swung hard toward primary care in the past few years, but the opportunities for well-trained pediatric subspecialists are many and varied. There is clearly a shortage of pediatric subspecialists in pulmonology, endocrinology, neurology, rheumatology, adolescent medicine, emergency medicine, gastroenterology, and probably other areas as well. There is never a shortage of positions for subspecialists who are well-trained in investigation, whether basic science or clinically oriented. There also has never been a time when more funding opportunities were available to new investigators.

Selecting a fellowship area really begins with a resident testing each area he/she encounters during training. If an area is under serious consideration, it is important to arrange one's schedule to do a rotation (or elective) in that area early on, in the PL-1 year or the beginning of the PL-2 year. The following questions should be considered. What are my strengths and do they match the subspecialty? Are these the kind of patients who I want to take care of? Can I deal with chronic aspects of disease? Can I deal with the fact that my patients may die? Do I enjoy providing support and guidance to patients and families? Is the application of high technology advances critical to my practice style? Do I want to focus my practice on a particular area? Often, a particular individual in a subspecialty or area of interest stands out as a role model or valued mentor. It must be recognized, however, that it may be difficult to separate the appreciation of a role model's practice from the desire to actually pursue additional training in that field. Experiences with a patient or patients may also affect an individual to the point of influencing one's future course. Sometimes lifestyle issues predominate and, thereby, dictate decisions.

**Who Does One Talk To?**

Everyone! Input should be gathered from fellow residents, attendings, advisors, program directors, and individuals within subspecialties of interest. All of this background and advice should serve as the foundation for making decisions. Discuss your interests with more than one member of the subspecialty faculty. Seek the input of your program director and faculty advisor/mentor. If suitable, talk with your department chair. All may have suggestions about specific programs, and they may be able to contact the programs and lobby in your interest.

**When Does One Start the Process?**

This should be done as early as possible, because at least one half of the first year is spent garnering basic skills and gaining confidence about abilities and decision-making. Aside from the few programs for which one almost has to apply shortly after birth, no program decisions need be made in the first year.

**What Materials Are Available?**

The Graduate Medical Education Directory, published by the Accreditation Council for Medical Education (ACGME), which can be found in medical school libraries and most specialty departments, lists
all accredited subspecialty training programs and contact information. The Directory also contains the educational requirements for specialty and subspecialty training as written by the specialty Residency Review Committees and the eligibility criteria for certification of the specialty boards. Each year the January issue of the Journal of Pediatrics lists fellowship programs, program directors, application deadlines, start dates, duration of appointment, and minimal requirements for application. This list, although it may not be complete, is an excellent place to begin the search of programs. However, the list does not provide any way to differentiate program quality. Some programs have developed well-deserved reputations over the years but that is hardly a quantitative approach to program selection. Specialty and subspecialty programs are listed in the Fellowship and Residency Electronic Interactive Database Access (FREIDA) Online on the American Medical Association web site (http://www.ama-assn.org/). FREIDA Online provides Internet access to extensive information on ACGME-accredited residency programs and combined specialty programs. FREIDA Online (www.ama-assn.org/cgi-bin/freida/freida.cgi) allows users to search all ACGME-accredited programs by program identifier, specialty/subspecialty, state/region, program size, and educational requirements, among other variables. All program listings include program director name, address, and phone number, as well as program length and number of positions offered. In addition, 85% of programs listed include expanded variables, such as program benefits (including compensation), resident-to-faculty ratio, work schedules, policies, and educational environment.

The Pediatric Infectious Diseases Society has an excellent web site (http://www.pids.org/Fellowship%20Training.htm) that provides extensive information about available fellowship programs. Many programs now list their faculty, program philosophy, and research activities on the Internet. Therefore, it is important to make the Internet an early reference and resource for program characteristics.

It might also be useful to look at abstracts submitted to the Society for Pediatric Research in one’s area of interest to identify individuals and programs whose focus of activity matches one’s own. The abstracts are published each year in Pediatric Research.

Is There a Computerized Matching Process?

At the present time, 4 pediatric subspecialties have a computerized matching process: emergency medicine, cardiology, hematology/oncology, and critical care medicine. Neonatal/perinatal medicine is weighing the merits of using a computerized match. With the high likelihood of couples’ involvement in subspecialty training and the interest of subspecialties in computerized matches, it will be important that the match date be synchronized in the future. Information regarding the match in pediatric emergency medicine can be found in the April issue of Journal of Pediatric Emergency Care, which also lists all active pediatric emergency medicine subspecialty programs. The National Resident Matching Program, Washington, DC, provides match deadline dates to programs and candidates (202-828-0676 and http://nrmp.aamc.org/nrmp/aboutnpm/index.htm).

How Does One Arrange Interviews and Time Off From Resident Duties?

This can be a sensitive issue, especially when a cross-covering resident is not actively looking for positions. The first rule should be that the traveling individual pays back those who cover while he/she is away. It is the resident’s responsibility to arrange coverage, and this should be coordinated carefully with the chief residents and the program director. Colleagues understand the importance of interview trips, but they should not be left with extra duty.

How Does One Evaluate a Program?

Many issues come into play here. Does the program have a balance of strong clinical experiences and research opportunities? How many subspecialty residents has the program trained in the last 5 years? How many subspecialty residents are currently in the program? How are they funded, especially for the second and third years that generally include fewer clinical duties? What do subspecialty residents do after they have completed the program? What is the board pass rate of graduates of the program? How successful is the program’s research efforts? Do they have NIH-funded grants? Do they have an NIH-funded training grant? How many faculty members are there and are they available? What is the faculty’s bibliography over the last 5 years? Are all faculty subspecialty board-certified? Do the research training opportunities coincide with your own needs and aspirations (eg, are there both clinical research and basic research opportunities)? How much time is available for the resident to do research? Is research available in blocks of time or is it interspersed in short segments throughout the program (which would not be desirable)? What is the call schedule and how much call is taken during research time? What is the prevailing philosophy of the program toward its trainees?

As with any new situation, it is imperative to evaluate the environment, the facilities, and the individuals with whom you will be interacting. What is the human chemistry? Did you like the faculty? Do you have the sense that one or more of the faculty members would be good mentors?

It is also important to assess the resources in other subspecialty areas and in other departments at each location. You may find that your clinical training will be completed in the cognate specialty area but that your research will take place with someone in a quite different area. Therefore, it is of crucial importance to understand the overall research programs and whether you will have the opportunity to go outside the subspecialty area for training if that is appropriate.

Ultimately, the question of whether a program is right is a decision with both tangible and intangible elements. Location, access to outside activities of in-
interest, spousal interests (most important), etc, all play an important part in the decision.

What Is an Appropriate Salary/Benefits Package?
Most individuals will enter subspecialty resident training in their fourth postgraduate year and should be paid at that level in accordance with the salary scale at the individual institution. During the second and third years of subspecialty training, the individual should be paid as fifth and sixth postgraduate year individuals. NIH stipends may pay at a different rate, and residents should be aware that this could affect their salary. Benefits should include malpractice insurance, health insurance, human immunodeficiency virus benefits, some life insurance, and an option to buy long-term disability insurance. One should also inquire about the ability to defer loans while in fellowship.

What Are the Critical Things to Evaluate Before Making a Decision?
The answer to this involves a review of the points discussed earlier regarding program evaluation. When families or significant others are involved, they must be a critical factor in making any decision. What kind of housing is available and at what distance from the workplace? Commuting always comes out of home time, not out of work time. How about schools for children, in quality and location, as well as public versus private? What is the proximity to friends and family? Is the associated lifestyle compatible with your current arrangements?

How Is an Offer Tendered, and What Does One Need to Do to Accept?
This process varies widely at the present time, because some areas have a computerized match and others a much more informal process. In the matching process, like the intern-matching process, one signs a contract to go to the highest matched program. Similarly, when one has either verbally or in writing accepted a position in a program outside the match, this is a contract that must be honored. The importance of careful deliberation and being sure before signing the contract must be emphasized, realizing, of course, that any contract can be broken. Don’t start a career off on the wrong foot, either in private practice or in any other venue by defaulting on a contractual obligation.

Once a contract has been signed (or the match completed), it is time to consider all of the other issues associated with job changes. If it is in a new city, matters of transportation, living arrangements, packing and moving, changing addresses, opening new bank accounts, and all the myriad of other details must be addressed. If a spouse or significant other is in the picture, his/her needs will also need to be considered. Failure to pay particular attention to the needs of a spouse, children, or significant other is a recipe for unhappiness and potential disaster.

Are There Policy and Procedural Issues That One Should Know About?
Staff privileges and licensure are important issues to deal with early. Be sure to check with each program to see whether you will need an unrestricted medical license or whether you will receive an educational/training license. Some states take up to 3 months to process license applications. It is best to start these proceedings as early as possible. Sick leave, medical leave, and family leave policies should be in place, and there should be a formal grievance procedure available.

OTHER TRAINING DIRECTIONS
Information on the Centers for Disease Control and Prevention can be found at http://www.cdc.gov/.
In addition, see: http://pages.prodigy.net/pdeziel.
Indian Health Service information is available at: http://www.ihs.gov/.

International Opportunities
Doctors Without Borders: http://www.dwb.org/
World Health Organization: http://www.who.int/
Project HOPE: http://www.projhope.org/
Child Family Health International: http://www.cfihi.org/
Child Health Research Project: http://www.childhealthresearch.org/

Surgical Opportunities
Operation Smile: http://operationsmile.org/wjoh/
Rotaplast: http://www.rotaplast.org/
Interplast: http://www.interplast.org/

Pediatric Scientist Development Program
A national program designed to provide training in basic science and basic health services research and career development opportunities for young pediatricians who are committed to academic research careers. Previous research experience is not required. Pediatric residents with doctor of medicine or doctor of medicine/doctor of philosophy degrees in their PL-3 or PL-4 years who are prepared to spend at least 2 years in fundamental research training to acquire strong research skills are encouraged to apply, as are candidates who seek training in statistics, epidemiology, informatics, or health policy. Candidates may not apply after clinical fellowship training has begun. Nominations must originate from chairpersons of medical school departments who are committed to providing continued career development support for the candidate. Applicants must be US citizens, permanent residents of the United States, or Canadian citizens. February 1, 2001, is the deadline for application for research training to begin July 1, 2002. Additional information available at: http://info.med.yale.edu/pediad/pedsci.htm.

Robert Wood Johnson Clinical Scholars Program
This program is designed to allow young physicians committed to clinical medicine to acquire new skills and training in the nonbiological sciences im-

http://www.pediatrics.org/cgi/content/full/107/5/e65 5 of 6
important to medical care systems. The program offers 2 years of graduate-level study and research as part of a university-based, postresidency training program in priority areas designated by participating institutions. The program is open to US citizens training in any of the medical/surgical specialty fields, including psychiatry, pediatrics, obstetrics/gynecology, and family medicine. Contact web site: http://www.rwjf.org/ (Table 3).

Subspecialty Information Access

**General**

FREIDA Online on the American Medical Association web site provides Internet access to extensive information on ACGME-accredited residency programs and combined specialty programs. FREIDA Online allows users to search all ACGME-accredited programs by program identifier, specialty/subspecialty, state/region, program size, and educational requirements, among other variables. All program listings include program director name, address, and phone number, as well as program length and number of positions offered. In addition, 85% of programs listed include expanded variables, such as program benefits (including compensation), resident-to-faculty ratio, work schedules, policies, and educational environment. Available at: http://www.ama-assn.org/cgi-bin/freida/freida.cgi.

Journal of Pediatrics

The January issue annually provides a listing of pediatric subspecialty programs. For subspecialties not listed below, the Journal of Pediatrics and FREIDA offer listings of training programs.

**General Academic Pediatrics**

Residents who desire additional training in general academic pediatrics should consider funding through individual National Research Service Awards from the National Institutes of Health. Available at: http://www.grants.nih.gov/training/nrsa.htm.

**Genetics**

For training in genetics see the American Board of Medical Genetics. Available at: www.faseb.org/genetics/abmg/abmgmenu.htm.

**Pediatric Cardiology**


**Pediatric Critical Care Medicine**


**Pediatric Infectious Diseases**

Excellent web site provides extensive information about available fellowship programs. Available at: http://www.pids.org/Fellowship%20Training.htm.

**Pediatric Pulmonology**


Asthma, allergy, and immunology information can be accessed at The American Board of Allergy and Immunology (http://www.abai.org/ and http://www.pharminfo.com/disease/immun/aaaai/airsc.html). Interviewing for positions in asthma, allergy, and immunology may start earlier than for other fellowships, and it is recommended that you begin during the first part of the second year.

Careers as hospitalists have become more attractive in the last few years as hospitals search for better ways to provide better inpatient services. See the web site of the American Academy of Pediatrics at: http://www.aap.org/ and http://www.hospitalist.net/.

**REFERENCES**