

■ A Postbac Primer or, A Rose is a Rose is a Rose, except when it is a Daffodil

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[*Ed. Note:* This article was originally written by Carol Baffi-Dugan and Gale Lang, who was the Assistant Dean of the College of General Studies and Director of the Post baccalaureate Program and Special Science Program at the University of Pennsylvania at the time (*The Advisor*, Vol. 19, 3, pp. 17-21). Carol and Gale initiated and coordinated, along with their colleagues Jodi Domsky, Bryn Mawr College and Jodi Olson, Scripps College, a Postbaccalaureate Programs Pre-Conference at the 1998 NAAHP National Meeting in Crystal City, which was attended by 75 advisors. Since that time, NAAHP has formed a Postbac Interest Group, chaired by Jodi Domsky, which aims to provide information to advisors on the NAAHP website, in this journal, and through sessions at regional and the national meeting.]

INTRODUCTION

One particularly noteworthy phenomenon in the medical school applicant pool beginning in the 90's is the growth in the "non-traditional" population- those applicants over 23 years of age. In fact, the data would indicate that perhaps the term "non-traditional" should be retired since so many more students are matriculating into medical school later than immediately following college graduation.¹ This trend is not exclusive to medical school as many other health professions are seeing increasing numbers of "older applicants" seeking to enter their profession.²

Far from a homogeneous group, these applicants provide special challenges to advisors who need to understand the pathways these individuals have followed, what has brought them to their chosen professional goal, and what preparation they need to become competitive. The purpose of this article is to provide a general

primer on what postbaccalaureate study means. In keeping with best practices in which an advisor provides information but also encourages a student to seek his/her own answers. As we encourage our students to delve into their own goals and values, the question format is a useful approach. Hence this article is designed to offer guidance in understanding and researching various programs and offers an array of questions advisors can ask their advisees as they help them navigate the options they have.

Lastly, medical education in the broadest sense, that is, all the health professions are making concerted efforts in recent decades to increase the number of underrepresented minorities and disadvantaged students pursuing health careers. Among the many activities and approaches that have been attempted by individual institutions, foundations, the federal government and the AAMC, was the development of programs to work with minority students after

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their college graduation to enhance their applications and make them competitive for admission. In the nineties, some of these programs were funded by a Health Careers Opportunity Program (HCOP)³ grant. Since this program has been drastically cut, professions and individual institutions have had to create other models and find other sources of funding to support this goal.

WHAT'S IN A NAME?

My efforts to think about this topic and to offer a helpful updated article for your use are influenced by two of my affinities which have increased with age. I am a gardener and I find the cycles of birth and death, the color and beauty of the natural world, the ability to get my hands dirty and make something grow to be food for my soul. The table where I meet my students always has a plant and a very small vase of flowers, and my office has other flowers, plants, gardening pictures, etc. My students often comment on how much they enjoy it. I also love analogies and find them increasingly useful in helping students understand the things I am trying to explain. Preparing for the MCATs becomes like practicing your scales until they become second nature. The health professions team is like your soccer team. Choosing courses is like going to a multinational restaurant with dishes you have never heard of. So my readers must forgive me as I begin.

The term “Post baccalaureate” very simply means “after the bachelor’s degree,” but the “postbac” population is far from simple. A rose is a rose is a rose may turn out to be a daffodil because the postbac landscape is a colorful garden of options. Different students with different needs have resulted in myriad types of programs. Our students bloom at different times. Some are fall plants who never thought about medicine during the spring season of their academic careers. Some were bright annuals arriving at college only to droop early and they need to be reseeded for another attempt. Understanding where they are and explaining the different options to them is critical as we help them fertilize and grow.

In the 1970’s there were less than a handful of formal “Postbac Programs” designed for the non-science college grad, known as the “career changer.” Today there are scores of different programs that are listed under that rubric serving the career changer as well as the applicant needing enhancement. How are the health professions advisor and the pre-health student to sort through this mix of programs and find the right choice?

The best first step is a searchable database that the AAMC has graciously maintained over the past two decades with the advice and input of the NAAHP Postbac Interest

Group (<https://services.aamc.org/postbac/>). This is a useful link for any advisor to have on his/her website. The site offers a number of search variables including type of program, public vs. private institution, and state in which it is located. But since programs post their own information, it is critical for the visitor to read much more carefully on each school’s website to learn about the specific offerings of a given program. The educated consumer should not make any assumptions about programs but rather do his/her homework – always a good lesson for us and our advisees.

TYPES OF POST BACCALAUREATE PROGRAMS

The first important step is to understand that there are different types of postbac programs. To start we will discuss the major dichotomy - those designed for the career changer and those designed for enhancement of an existing science record. Most program literature will state clearly which population it serves. Some serve both. A student must understand what his/her are, and an advisor needs might need to help the student reach that understanding. If the student needs to enhance a weak record, there are programs that offer undergraduate coursework and those that offer a master’s degree. In addition there are programs which specifically target underrepresented minority students. Once the student knows which type of program s/he needs, then the research can begin. The advisor can provide resources for the student and guidance in how to use them. Equally important is the advisor’s role in encouraging the student to ask the right questions and do a realistic self-assessment before making any hasty decisions. As with all health professions advising, there are personal choices that a student must make for him/herself.

CAREER CHANGER PROGRAMS

With the GPEP report on medical education in the early 1980’s⁴ medical educators made a clear statement that they wanted students from many different majors and backgrounds. In addition, court enforcement of laws prohibiting age discrimination, and the decline in the traditional-aged applicant pool in the later eighties may also have encouraged the acceptance of this non-traditional group, as hinted by a US News and World article on March 22, 1993.⁵ Perhaps this gave hope to many college graduates who had thought that only undergraduate biology majors were successful in gaining admission to medical school. Perhaps there were other forces at work. Whatever the causes, the result was tremendous growth in interest from that segment of the population which had completed college with a non-science major and pursued other interests or careers before determining that medicine was their true calling. On the heels of this growth was the

proliferation of programs designed to help those students meet their goals.

The “non-traditional” group is comprised of this type of student but also the student over 23 who is reapplying after having been unsuccessful at gaining admission. As medical school admission became increasingly competitive throughout the nineties, this group grew as well. Students who had been rejected sought ways to make themselves competitive candidates in order to reapply. Other postbac programs developed to meet this growing need.

As mentioned above, career changer programs are those designed for students who have taken few, if any, science courses and seek an institution that will allow them to do so. In the 90’s these individuals tended to be college graduates with work experience in another field who then change directions and head towards a health profession. Increasingly the population includes seniors who set aside premed courses for whatever reason in college with plans of completing them after college. There is even a verb for this – they are going to “postbac it.” There is a vast array of institutions to accommodate students such as these non-science college grads, but the ways in which they do so vary tremendously. They tend to fall into three groups.

Formal, structured and selective programs are perhaps the most visible of the postbac programs. They are well-organized and clearly defined. Their literature outlines their offerings and gives them a distinctive image. There is some structure to the way students proceed through the program, and there is a selection process that is often fairly rigorous, including an application, letters of recommendation, and often an interview. Only a percentage of those who apply are admitted and, in turn, the success rate of those students applying to medical or other health professions schools is high. Often there are linkages to certain medical schools offering the student an early conditional acceptance and the opportunity to avoid the “glide,” or application, year.

There are also formal programs that are far less structured and not very selective. These programs are also clearly defined and have literature explaining who they are. But they have less structure in the way students begin and end their studies; they may not actually have a “list” of students in the program. Typically these programs have a more open admission policy and many more students studying than the more selective programs. The attrition rate may be much higher in these programs, but they offer opportunity to those students who may have been closed out by the smaller, more selective programs. Their success rate may also be lower than the more selective programs.

Lastly, there are programs in the loosest sense of the word. Many colleges and universities have tapped into the adult market by offering continuing education options or second degree opportunities to students seeking courses beyond the original bachelor’s degree. These “programs” rarely have specific literature about postbac premed study, or a structure within which students work, or a careful selection process.

There are many factors that students will use in determining which program is best suited to them, and many students will seriously consider and even apply to numerous programs before making their choice. What sorts of questions might a student ask in researching programs?

Some of the more practical questions might be:

- Where is the program located?
- Can I study full-time, part-time or either, depending on my needs?
- Is this a public or private institution? What is the tuition?
- Are the classes held in the evening or during the day? Can I keep my job?

Programs often involve far more than just taking courses. Questions about services offered are important:

- Will I receive individual advising from a health professions advisor? How accessible is that person?
- Will I be guaranteed a space in the classes and labs I need to take?
- Will I receive a composite letter of evaluation from the institution?
- Is there financial aid available?
- Are there linkages to medical schools or other health professions schools?
- Is there assistance in finding a health-related internship or job?
- Is there academic assistance, such as tutoring, available? Is it free?
- Is there a community of students of which I will be a part?
- Is there programming- lectures, workshops on applying, etc?

Once a student has all this information about each program being investigated, s/he can begin to determine which factors are important. Of course, this will vary for each student. Geographic location may be the primary concern because a student needs to stay with a spouse, or live at home with parents. Cost may be the major determinant and/or the opportunity to keep a current job while taking classes. Services may be of the highest priority because a

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student wants more than merely a place to take classes. Notice that the list above does not mention acceptance rate. Health professions advisors realize, through personal experience at their own schools, that students put undue emphasis on that factor and often overlook far more important factors. Also acceptance rates are affected by many things. Just as with undergraduates, postbac students who do very well in their courses and their MCATs tend to do well gaining admission to medical schools. Those who don't do well, don't. As with everything else, advisors can only guide, raise the important questions and encourage careful thought.

ENHANCEMENT PROGRAMS

While students who need to enhance an existing science record in order to become more competitive candidates have many options, planning for this can be complicated. Before deciding whether or not to do this and planning how to do this, the student must consider carefully the existing record and ask some difficult questions. This is a time when the help of a supportive, but probing, advisor can be crucial. Advising students about pursuing further science work is most productive when the student is open and honest about the previous record and what contributed to it. Candid self-assessment, with the advisor's help, is essential. Encouraging a student to consider what weaknesses must be addressed and why s/he believes things will be different in postbac work can result in the student either continuing on in science or exploring other career goals.

- Why are you not a competitive candidate?
- Why have you not been successful in science coursework to date?
- What will change if you undertake further courses?
- Why do you think you can do better on the MCAT?

The chances for success in postbac work are best when a student can be reasonably confident that s/he can do better in science, when there is reason to believe that with an additional year or more of work, the record will improve. The classic "late bloomer" who began to do good work late in college, or the student who started out well but had a "sophomore slump," or the student whose record is erratic- these students often find postbac work an effective way to solidify the record and demonstrate consistent good work. The student without an upward trend in the sciences, whose work did not get better as s/he became a more seasoned student may find that postbac work simply offers the opportunity for "more of the same," likely producing the same admissions results.

Once the student decides to continue on in the sciences, in the hope and expectation that credentials can be improved,

then the choice about programs arises. The student needs to ask the same questions raised in the previous section of this article, plus there are others to consider:

- Do I want a formal program, or informal?
- Do I want to stay on for another year at my alma mater or start fresh at another school?
- Do I want to study full-time or part-time?
- Will I need financial aid, and if so, is it available, and for how long?

There are further questions to consider:

- If I need to improve on the MCAT, how will I accomplish that?
- Are commercial preparatory courses available nearby?
- Are there support services available to me?
- Should I take courses at the undergraduate level or take graduate courses?
- Is graduate work in public health an option for me?
- The student with premedical preparation from undergraduate school may have choices about advising:
 - Will I continue to work with my undergraduate advisor?
 - Or will there be advising at the postbac program?
 - Who will provide letters of evaluation - the postbac program or the degree-granting school?

Graduate vs. Undergraduate Work

The decision between further undergraduate work or graduate work can hinge on several factors. If the student has completed a major in the sciences and feels s/he has exhausted the range of further undergraduate courses, then graduate work may appeal. The converse is true- the student with only a few courses beyond the requirements may be well served by more undergraduate courses, which will be included in the undergraduate science grade point average.

The student must be realistic about his/her long-term career goals. Clarity of purpose will help in making the decision between further undergraduate work and graduate work and the decision between traditional graduate work and the "special master's" programs.

Good conversations with the undergraduate health professions advisor and the postbac advisor can help the student understand the options, which will help decision-making. Here again the advisor can help by posing tough questions:

- If you do not ultimately gain admission to medical school after completing this degree, what are your alternate career goals?

- Is this a graduate degree that will be useful to you in that career?
- Do you want to gain research experience?
- Do you want an academic career in science?

“Special Master’s” Programs

In addition to the traditional master’s degrees in the biomedical sciences, there are numerous “Special Master’s” programs, offering MS degrees in the medical sciences. These graduate programs generally target students whose career goal is medicine, rather than an academic career and have a very specific definition. These are offered by medical schools and usually comprise a combination of medical school courses and advanced/graduate science courses. The courses include those traditionally offered in the first year of medical school, however, advanced standing or transfer credit to medical school is not usually earned. Students who go on to medical school complete a full four-year medical school curriculum.

The programs are highly structured and the work is rigorous, with the intent of modeling a year in medical school. The programs seek students whose academic credentials are close to those of accepted medical students. Many students in these programs may have interviewed at medical school in the previous cycle, but they were not ultimately admitted. Good performance in these programs can be a useful predictor of success in medical school. For this reason they can be attractive to the student who will say, “I know I can do the work; they just need to give me a chance to prove it.”

Admission to the medical school granting the MS is not guaranteed, although admission to that school often results from good work there. With these special master’s programs and all other enhancement programs, the hard truth is that mediocre or poor performance at this level effectively puts medical school admission out of range for that student.

FOR THE UNDERREPRESENTED MINORITY STUDENT

Underrepresented minority students (defined by the AAMC prior to 2003 as Blacks, Mexican Americans, Native Americans and mainland Puerto Ricans) as well as other disadvantaged students may find any of these types of postbaccalaureate premed programs appropriate for them. These students should ask the same questions outlined above. However, there are other programs specifically designed for minority students that should be investigated. These all fall under the heading of enhancement programs, designed to support disadvantaged students and increase

the numbers of them who apply successfully to medical school.

Websites that list postbac programs sometimes note which ones specifically target minority students. In years past, there were some publications such as *Getting into Medical School, A Planning Guide for Minority Students*, by Edward James and Karen Hamilton,⁶ that would list programs as well. While every program will be interested in receiving applications from minority students, it is important to know which ones have that as their particular mission. Usually such programs offer greater financial support, including stipends and travel expenses. Often there are mentoring, research opportunities, study skills and MCAT prep included.⁷

When there was significant HCOP funding, there were numerous programs targeted to minority students. Usually such programs were located at medical schools. Other medical schools may still fund their own programs for select minority students to whom they have denied admission but whom they want to assist in improving their application and reapplying. All of these are typically small, well-designed programs that offer tremendous support to their students and have note-worthy success. An example of a cooperative program among numerous medical schools is the Associated Medical Colleges of New York.⁸

Prompted by an article in *Academic Medicine* by Grumbach⁹, in 2011 members of the NAAHP Postbac Interest Group reached out to begin discussions about the important role that special postbaccalaureate programs aimed at enhancing the records of disadvantaged students could play in increasing the numbers of successful applicants. There is now a Postbac Collaborative group within the AAMC that is focusing on this, and Francisco Castelan, Chair of the NAAHP Diversity and Inclusion Committee is a member.

CONCLUSION

So the garden is polychromatic, multi-textured and designed to bloom throughout the three or four seasons. Such are the students with whom we work. If we can support and guide them through the weeds to honestly assess their own needs, and thoroughly explore the postbac landscape we can help them find the soil in which they can truly grow.

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