

THE DECISION TO PURSUE A CAREER IN MEDICINE

Having career aspirations for one of the health professions is a challenging and exciting choice. Your undergraduate pre-professional preparation will be a key element in your overall comprehensive master plan for success (i.e., ACCEPTANCE). You should be aware that competition for admission to medical schools is very intense. Currently, only about one-half of those who now apply gain admission - even though the majority of those rejected would, by common agreement, be able to successfully complete medical school, and could make competent and dedicated physicians. Each year, the number of applicants increases while the number of positions remains relatively constant. Thus, competition for admission is becoming even more intense.

Many young people enter college expecting to become doctors. But with little real knowledge of what is involved in the practice of medicine, dentistry, or other health-related professions. Often students have little real understanding of the trade-offs that are made when choosing medicine as a career goal, particularly concerning the pressure and demands made by the profession. Hopefully, the Health Professions Advisory Office can be a valuable source of information as you make your "choices and trade-offs" in preparation for a career in the health professions.

We look forward to working with you as you embark on a career pathway that will make heavy demands on your mental, physical, and emotional well-being. It is essential that you maximize your awareness, make informed judgments, pay attention to details, minimize errors, and excel academically. The Health Professions Advisory Office exists to help you enjoy a positive undergraduate preparation. However, YOUR academic performance, YOUR admission test scores, and YOUR overall credentials will determine YOUR success. We want to help you and we wish you all the best as you prepare to join the health care delivery team.

Stacey Bradford
Health Professions Advisor
618-650-5339

The following timeline lays out the steps you must take to prepare for admission:

1. Decide on medicine
2. Complete undergraduate science requirements
3. Get volunteer/work experience in health-related fields
4. Consider a broad course selection
5. Develop staff/faculty advisors
6. Prepare for the MCAT
7. Take the MCAT exam
8. Submit transcripts and application materials
9. Monitor application completion/distribution
10. Interview if invited

Undergraduate Studies:

While a Bachelor's degree is not a requirement for admission into all medical schools, more than 99% of accepted students in 1999 had one. Until recently, nearly all pre-med students majored in Chemistry or Biology. Today students with all kinds of majors are being accepted. In fact, a recent study shows, "acceptance rates range from 45 percent in biology to 48 percent in nonscience and 55 percent in physical sciences. There is an apparent trend among admissions officers to encourage potential applicants to medical school to consider nonscience majors during their college years." (Fruen) The changing face of medicine is looking for "people" people, not just academic superstars as in years past. You are better off majoring in Philosophy and maintaining a 3.9 GPA (grade point average) than majoring in Biology and only getting a 3.5. So by all means study what you are interested in and what you're good at because admissions committees are looking for well-rounded candidates who have studied a variety of subjects while in college. However, there are still some very specific requirements for admission into most US medical schools, they are:

- One year of General Chemistry with lab
- One year of Organic Chemistry with lab
- One year of Biology
- One year of Physics
- College level math

While these courses are pretty standard, medical schools do vary slightly in their admissions requirements. Even if you are a junior in high school, it won't hurt to take a look at the requirements for the medical school you are most interested in attending and plan your undergraduate program accordingly. The biggest variance seems to be math. Some schools want to see a year of calculus, while others only require one college-level statistics class and others have no math requirement at all. Many schools are beginning to expect undergraduate course work in biochemistry and/or genetics. Again, check with the admissions office of the schools you are interested in for specific requirements.

The Medical College Admission Test (MCAT):

Upon completion of the mandatory course work, the next big hurdle you will face is the MCAT. The MCAT is the first of many major exams that you will have to pass on your way to becoming a practicing physician. All but one major US medical school uses results from this test to select candidates. The MCAT is offered in April and August of each year. It is a good idea to take the exam in April of your Junior year of college so you can have your results back in time to begin applying to med school in the summer. Most programs begin taking applications in the summer a year prior to fall admission. If you do poorly you can re-take the test in August, but doing so will probably delay your admission into medical school by a year and shouldn't be considered unless you are sure that you can increase your scores significantly. Many students take prep courses before sitting for the exam and find them helpful. However, the courses are quite expensive and if you are good at studying on your own, you can probably do as well without them. The prerequisite courses mentioned above all help prepare you to pass this test which consists of four sections:

MCAT scores are based on the four parts of the MCAT exam: Physical Sciences (PS), Verbal Reasoning (VR), Biological Sciences (BS), and the Writing Sample (WS).

- For PS, there are 77 questions, with a scoring range of 1 to 15.
- For VR, there are 60 questions, with a scoring range of 1 to 15.
- For BS, there are 77 questions, with a scoring range of 1 to 15.
- For WS, there are 2 questions, with a scoring range of J to T.

Visit the [AAMC Medical College Admission Test page](#).

Acceptance Statistics:

There are two different types of physicians that we think of as "Doctors". The MD degree is granted from allopathic medical schools and the DO (Doctor of Osteopathy) is granted from Osteopathic schools. Training and curriculum is very similar between the two, with the main difference being that Osteopaths learn skeletal and muscular manipulation (similar to Chiropractors) to complement traditional medical treatment. Both are recognized and board certified by the American Medical Association. Although Osteopathic schools have lower requirements for GPA and MCAT scores, their acceptance rate is lower because there are less positions available. Also of note is that tuition for Osteopathic schools is generally higher since most of the programs are private.

Following is information compiled in 2005 (* figures are for 1999) for acceptance to US allopathic medical schools. As you can see, only about 4 out of 10 applicants are accepted.

US Medical Schools (Allopathic)

- *125 schools*
- *37,304 applicants*
- *17,004 entrants*
- *42.4%* acceptance*
- *48.5% women*
- *11.3%* US under-represented minorities*
- *11.7 applications/applicant**
- *59% Public/41% Private**

Average Matriculant Scores

MCAT

- *VR 9.7*
- *PS 10.1*
- *BS 10.1*
- *WS P*

GPA

- *Sciences 3.56*
- *Total 3.63*

** Adapted from: Pfizer Medical Manual, 1999 and AAMC FACTS*

Pre-Health Journey

Think of your journey toward becoming a successful competitive applicant as putting a puzzle together. The pieces include:

1. Strong GPA

Achieving strong academic credentials in your coursework during your college career-- goes without saying. Most students will apply to their respective health professional programs after completing the junior year in college which reflects three years of strong performance when submitting the application. Science GPA: Schools will split your GPA into two categories, a science GPA known as the BCPM which reflects courses in Biology, Chemistry, Physics and Mathematics. The second part of the GPA is the overall or cumulative GPA of all courses you have taken. Your goal is attain a suggested GPA of a 3.5 or better to be a competitive candidate.

2. Test Scores

The second objective piece of the puzzle is your test scores. Each health profession will require an entrance exam to help them determine, in the application process, your competitiveness to other candidates. If you are applying to medical school, either allopathic (MD) or osteopathic (DO), a MCAT (Medical College Admissions Test) is required. You may also use the MCAT to apply to Podiatry (DPM) schools. The exam should not be more than three to four years old.

Those pursuing a dental degree will need to complete the Dental Admission Test, known as the DAT. Your goal is to achieve a DAT score of at least an 18 or higher. Admission to most Pharmacy schools requires a PCAT, Pharmacy College Admission Test.

The OAT, Optometry Admission Test, is required to enter an Optometry program. The Graduate Record Examination (GRE) is the entrance exam that you will need to take if you are planning to apply to master or doctoral level programs in Physical Therapy (PT), Occupational Therapy (OT), Nursing, or Physician Assistant (PA). The GRE General Test is a standardized examination graduate and professional schools use along with your application to admit students into their graduate programs. The exam is a computer adaptive test (CAT) administered year round. It is important to note that only minimal computer skills are required to take the test.

3. Application Process

Applying to a health professional school is basically producing a résumé to be entered on each specific application. Although you do not forward your résumé, all that you have accomplished after high school and in college will be accounted for on the application. Most students apply to their desired health professional school during the summer after the junior in college. You will complete the application in the summer, submit and hope for interviews and offers of acceptance during the fall or winter months. This will allow time to complete financial aid applications, complete your senior year of college and enter the following fall after graduation.

The application is a document that includes your competitive GPA, test scores, your personal history, an essay that shows off your writing skills, and an accountability of courses completed to meet the requirements for entering your specific profession of study.

4. Credentials (Letters of Evaluation or Letters of Reference)

The Credential File contains your letters of evaluation, otherwise known as Letters of Recommendation that you can use when applying to graduate or professional schools (i.e. medicine, dentistry, optometry, law, psychology, speech and hearing). This file of letters CANNOT be used for employment, scholarship applications, including internships, externships, or fellowships.

If you are applying to physical therapy, occupational therapy or physician assistant programs, we recommend you DO NOT open the Credential File. These programs have specific guidelines and forms for receiving letters of evaluation. Please check each school for specific application directions. The Credential File assists you if you want to:

1. Apply to several institutions (we send out the same batch of letters to all the places you want to apply)
2. Ease the burden of the duplication of letters by the evaluators
3. Acquire access to your file at any time
4. Check on the status of a letter returned
5. Provide confidentiality to your letters
6. Assure prompt mailing of letters
7. Maintain a file if you decide to apply after graduation

5. Interview Skills

First impressions do count! The interview is the opportunity to express your accomplishments, your desire to pursue a health profession with dedication and vigor as well as showing a true commitment to continued learning. The interview also shows your personality and how you express yourself with “future patients”.

6. Leadership Abilities

Leadership is part of the puzzle that you have probably been doing since your entered school. You lead in discussions in your classes, you lead in your organizations, and you lead within your family or with your group of friends. Leading is based upon listening and then taking action-“To lead is to listen”. As a practitioner, you will lead your clinical/hospital floor of professionals, you will lead in your surgical unit, and you will lead within your community. In times of crisis or concern, your patients will look to you for comfort and leadership to calm their fears. It is with your leadership you will “listen and take action”.

7. Commitment to Life Long Learning

Committing oneself to a life of service as well as life long learning is noble. Learning does not end when you complete your professional training as a physician, dentist or other health professional but it is only the beginning. Not only will you need to enroll in professional continuing education courses and seminars to keep your license current, you must also stay abreast of new procedures as well as issues that face your profession. You must realize that this is a profession will be constantly changing with new technologies and procedures and faces continuous change in health care policies. You must be prepared for Life Long Learning! Take a look at this Yahoo Directory of Medical Professional Associations, these are associations dedicated to informing medical professionals, their publications and events give you an excellent view inside the profession.

8. Exposure to the Health Field

Gaining practical experience in the health care field is essential in helping you decide if this is truly your calling. Too many times one can get caught up on the “glitz” of TV programs but not really appreciate what it takes to get to the end result—education and practice. Television doesn't show the degree of study needed, the smell of death and dying or the true jubilation one feels on a family's joy of a cure or remission.

Getting exposure to the field can be originated from several avenues and at different times during your undergraduate career:

- Take a look at this Yahoo Directory of Medical Professional Associations, these are associations dedicated to informing medical professionals, their publications and events give you an excellent view inside the profession.
- You can volunteer at variety locations: hospitals, clinics or nursing homes, retirement villages, rehabilitation centers, shelters, crisis nurseries, special camps for children or adults, community outreach programs or public health centers for a few hours each week.
- Work as a Personal Assistant (PA) to a disabled member of the local or campus community.
- Internships are another form of experience; take a look at our collection of Health Professions Internships. Be sure to contact the volunteer coordinator of these facilities early in the process of acquiring a position (it can take some time to find you a position).

- You can also choose to become certified as a CNA, EMT, or PharmTech. Remember, all your patients will not be your age but rather a cross section of the life cycle with people of various ages, ethnic backgrounds and personalities. Learn early in the process to encounter and welcome this diversity.
- Shadowing: You can gain this experience by pursuing an externship or "shadowing" experience. What better time in your life do you have to truly understand what you are getting yourself into? If you have the opportunity, approach your desired health care professional and ask if they allow "shadowing" for a day, week or month. They may even allow you to continue on into a longer term externship or internship. If you don't ask you won't know - give it a try.
- Anywhere you can have first hand experience will be an asset to you as well as exhibiting to an admission officer that you are truly interested and committed to your chosen health care field.

9. Transferable Skills

What are transferable skills? How will you use them in your medical career?

Transferable skills are skills you have previously learned and now must practice and perfect each day to be a strong health care professional. These skills particularly relate to: Speaking, Listening, Organizational/Time Management and Writing. Building Career Skills for Success will make students more promising candidates to any program, job, or graduate school.

Speaking Skills:

Public speaking is not easy, and takes practice and encouragement. Your speaking ability will be challenged in during your interview, visiting with admission officers and later in your practice.

How can you develop this skill?

- Take a speech class
- Give campus tours
- Introduce the speaker at your club events
- Take a leadership role in your living unit
- Practice a mock interview for your medical visit

How will you transfer this skill in your professional work? (speaking)

You will be a non-traditional teacher as a health professional i.e. Giving advice and explaining treatment, consoling patients, and sharing in spirituality if needed

- You will direct a team of professionals, consulting in care issues;
- You will be actively consoling not only your patient but the family members
- You will be out in your community as a spokesperson for issues that affect public health

- As you know health care is revenue driven and you will be asked to present seminars, outreach programs addressing prenatal issues, obesity, stress, or hypertension. Many are revenue driven by hospitals and clinics.

Listening Skills:

Every day of your life as a health professional your first priority is to listen to the patient, whether you like it or not. You must listen to their concerns, their most intimate needs and ailments; make a diagnosis and a prognosis. You must listen with a humanitarian heart.

How can you further develop your listening skills?

- You learn to listen in your many leadership roles.
- You listen in your volunteer activities—on what needs to be accomplished
- You listen in class and group assignments and make contributions
- You listen in your work experiences and follow directives

How will you transfer this skill in your professional work?

- To listen is to understand the patients situation, listening to their concerns, struggles with life, their challenges, their fears
- To listen is to show your humanity and concern not only for patients but fellow colleagues and staff you supervise
- To listen allows you to analyze a situation thoughtfully and reasonably, to solve problems moment to moment.

Organizational /Time Management Skills

Many have to learn this skill especially during a busy professional life- through prioritizing. Each student has a busy schedule which includes classes, study, volunteering, leadership roles, working and conducting research, and yes, having a social life. You have truly begun to develop strong organizational skills.

How will you transfer this skill in your professional work?

- By becoming a team player working with your health care staff, be it nurses, specialists, clerical support
- By juggling your work schedule, family and community commitments.
- By organizing your time to take care of yourself- diet, exercise and stress relief, and possibly personal meditation.

Writing Skills

Your writing skills, the ability to express yourself in a written format, will be required both in your entrance exam (MCAT, DAT, PCAT) and when you submit your applications which will include a personal essay, or professional comments.

You must make yourself clear, writing professionally and concisely.

You must be able to explain “how do you know health/medicine/dentistry is your passion?” and prove to the reader this is the right career path. No one else can explain this but you and your inner thoughts. When you are writing, YOU are making your transcript, experiences and life events “talk”.

This is just the beginning of your writing skills, if you are pursuing a MD/PhD.

As a MD/PhD candidate you must propose your research, making it clear and concise. As many know-- writing your dissertation is truly your greatest skill in writing.

How will you transfer this skill in your professional work?

- As a health professional you will write patient directives by writing orders, assigning rehabilitation, and drug therapy for others to initiate
- You will write petitions to insurance companies and support of procedures which must be precise and descriptive as well as supportive.

Writing doesn't end upon your degree, it is just the beginning.

10. Stamina

As a health care provider you will encounter many forms of stamina needed to complete a typical work day. Your educational stamina does not end once you have completed your professional training program - it is just the beginning. As you face patients who seek your advice, you must always be right - providing them with the technical procedures, prescriptions or consultations to help them return to daily productive lives. You must be willing to give of your time irrespective of your own personal needs or plans. In addition, you will need a strong physical stamina to be able to work long hours, have incomplete nights of sleep, and in some cases encounter restrictive seating positions (as a dentist or optometrist). For example, as a physician you will arrive early in the morning checking hospital patients, preparing for either specialty procedures and/or daily appointments, consulting with support staff, administrators and professional peers, tending to patients, and returning to the hospital at the end of your day for last rounds before leaving for home. The third component is handling emotional stamina which draws on your energy resources that are not easily replenished. Your feeling of helplessness on the loss of a patient, the cautiousness in the daily encounter with AIDS, and the frustration in the diagnosis of debilitating diseases which offers no cure, are constant challenges.

11. Trust and Ethics

Obtaining the trust of your patient and acting ethically toward them is at the forefront of all aspects of medical education. Courses are prevalent in schools teaching medical ethics, medical humanities, personal values and moral education and medical professionalism. As a health provider, you take an oath upon graduation, “to do no harm” and with this oath carry challenges you will face as a health care provider. You must respect the patient rights, even though they may challenge your value system; obey the law; and follow professional standards of your medical practice. Read the American College of Physicians Ethics Manual for a better sense of ethics in the medical profession.

12. Analytical Skills

The ability to analyze a situation under the stress and anxiousness of your patient is truly a skill. Being able to listen, ask the right questions, make an educated “diagnosis”, and follow through with the correct treatment, medication or referral challenges your experience and your knowledge to the fullest. There is little room for mistakes in your judgment of helping a patient. You will learn that medicine is not only memorizing from a book but the ability to calmly think thoroughly through a situation and make an assessment. No longer can your analytical skills be based upon a GPA, but on your true understanding and application of knowledge.