

The M.D.



DOCTOR OF MEDICINE



What is a Doctor of Medicine?



- Doctor of Medicine (MD) is a terminal degree for allopathic physicians. In the United States, it is a professional doctorate granted by allopathic medical schools. The DO, or Doctor of Osteopathic Medicine, is a professional doctorate granted by osteopathic medical schools.
- The first allopathic medical schools were Columbia, Penn, Harvard, Maryland, and McGill. These first few North American medical schools that were established were (for the most part) founded by physicians and surgeons who had been trained in England and Scotland. University medical education in England culminated with the MB qualification. North American medical schools switched to the tradition of the ancient universities of Scotland and began granting the MD rather than the MB beginning in the late 18th century. The Columbia University College of Physicians and Surgeons in New York (which at the time was referred to as King's College of Medicine) was the first American University to grant the MD degree instead of the MB.
- In the United States, allopathic medical schools are accredited by the Liaison Committee on Medical Education (LCME), an independent body sponsored by the Association of American Medical Colleges (AAMC) and the American Medical Association (AMA).

The Road to the M.D.



I.

II.

III.

IV.

V.

VI.

VII.

- I. Childhood through High School (18 years).**
- II. College (4 years).** Four years at a college or university to earn a BS or BA degree, usually with a strong emphasis on basic sciences, such as biology, chemistry, and physics (some students may enter medical school with other areas of emphasis).
- III. Gap/Glide Year (s) (1-2 years, optional).** Many students opt to take time between undergrad and medical school to gain additional life experience, strengthen their candidacies, and take a mental break from education before embarking on the rigors of medical school.
- IV. Medical School (3-8 years).** Also known as “undergraduate medical education,” medical training includes classroom learning and clinical experience. Students take the USMLE, or “board exams” and earn the MD degree at the successful completion of medical school. Medical school traditionally takes four years to complete. Increasing numbers of students are pursuing dual degrees (such as the MD/MPH, MD/MBA, or the MD/PhD) which may add time to the degree (usually 0-2 years for a masters and 3-4 years for a PhD). There are a few medical schools that have accelerated and integrated the curriculum so that students complete medical school in three years.
- V. Residency Program (3-7 years).** Also known as “graduate medical education.” During medical school, students determine the kind of medicine that they want to practice, and apply for and are matched into their hands-on, residency training. Residency lengths vary by field of practice from 3 years (internal medicine, family medicine, pediatrics) to 5 years (general surgery), to 7 years (neurosurgery).
- VI. Fellowship (1-3 years, optional).** Some MDs choose to pursue specialized training after residency, such as cardiology, hematology/oncology, or geriatrics.
- VII. Continuing Medical Education.** As a practicing MD, you may be required to participate in continuing training to learn about advances in your field or maintain specific knowledge. CME requirements vary by state.

Basic Requirements for Medical Schools



Come to HPA to review the list of the required and recommended courses for each U.S. and Canadian medical school.

State	Medical School Name	Behav Sci	Bio Chem	Biolo gy	Biol/ Zool	Calcu lus	Coll Eng	Coll Math	Comp Sci	Genet ics	Huma nities	Org Chem	Physi cs	Psych ology	Social Sci	Inorg Chem
AL	University of Alabama School of Medicine		✓	✓			✓	✓				✓	✓			✓
AL	University of South Alabama College of Medicine		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓
AZ	University of Arizona College of Medicine	✓			✓		✓					✓	✓			✓
AZ	University of Arizona College of Medicine-Phoenix	✓	✓	✓			✓	✓			✓				✓	✓
AR	University of Arkansas for Medical Sciences College of Medicine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CA	Keck School of Medicine of the University of Southern California			✓			✓		✓		✓	✓	✓		✓	✓
CA	Loma Linda University School of Medicine		✓		✓		✓		✓			✓	✓	✓	✓	✓
CA	Stanford University School of Medicine	✓	✓	✓		✓	✓			✓	✓	✓	✓		✓	✓
CA	University of California, Davis, School of Medicine	✓	✓	✓			✓	✓		✓	✓	✓	✓		✓	✓
CA	University of California, Irvine, School of Medicine	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓	✓	✓
CA	University of California, Los Angeles David Geffen School of Medicine			✓		✓	✓	✓	✓		✓	✓	✓			✓
CA	University of California, Riverside, School of Medicine		✓	✓		✓	✓	✓			✓	✓	✓			✓
CA	University of California, San Diego School of Medicine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CA	University of California, San Francisco, School of Medicine				✓							✓	✓			✓
CO	University of Colorado School of Medicine	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CT	Frank H. Netter MD School of Medicine at Quinnipiac University		✓	✓			✓	✓			✓	✓	✓	✓	✓	✓
CT	University of Connecticut School of Medicine		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
CT	Yale School of Medicine		✓	✓	✓						✓	✓	✓			✓
DC	Georgetown University School of Medicine		✓	✓			✓	✓	✓	✓	✓	✓	✓		✓	✓
DC	George Washington University School of Medicine and Health Sciences		✓	✓			✓					✓	✓			✓
DC	Howard University College of Medicine		✓	✓			✓	✓		✓	✓	✓	✓			✓
FL	Florida Atlantic University Charles E. Schmidt College of Medicine	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FL	Florida International University Herbert Wertheim College of Medicine	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

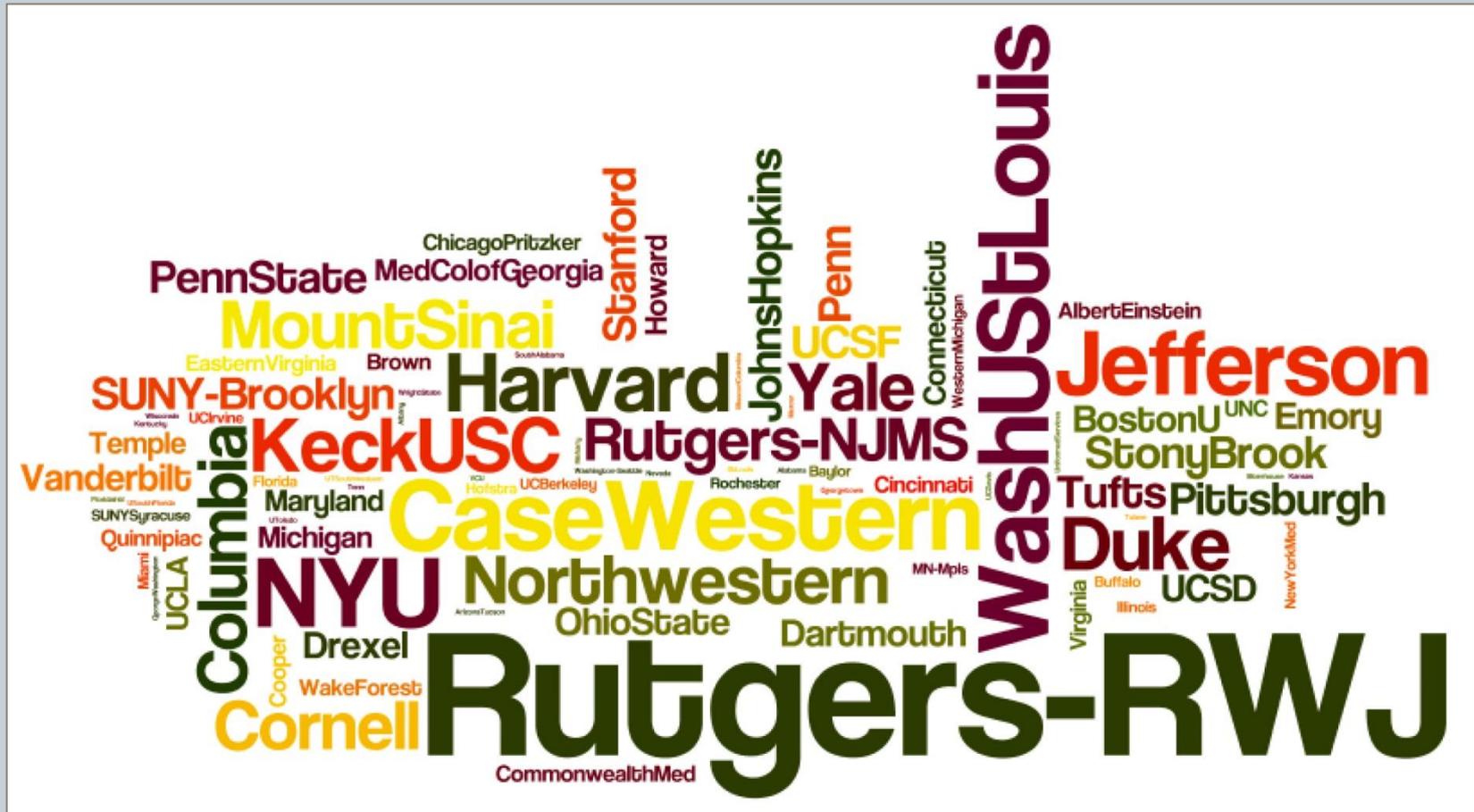
10 Most Popular Schools

receiving the most applications from PU students for 2012-15 matriculation



1. Columbia University College of Physicians & Surgeons
2. NYU School of Medicine
3. Perelman School of Medicine at the University of Pennsylvania
4. Icahn School of Medicine at Mt. Sinai
5. Weill Cornell Medical College
6. Yale School of Medicine
7. Stanford University School of Medicine
8. Harvard Medical School
9. Johns Hopkins University School of Medicine
10. Duke University School of Medicine

2015 Medical School Acceptances



Size of Name Corresponds to Number of Princeton Student Acceptances

Sample Medical School Curriculum

from Harvard Medical School



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Year I		Introduction to the Profession (ITP)	Foundations			IDD	Essentials	Homeostasis 1		Homeostasis 2		
		Practice of Medicine (POM)					POM		POM			
Year II	MBBD		Transition to the PCE	Principal Clinical Experience: Core Clerkships (PCE)			PCE			PCE		
	POM											
Year III	PCE			USMLE Study/Step 1			Advanced Experiences & Scholarly Project					
Year IV	Advanced Experiences & Scholarly Project									Capstone Course		
							USMLE Steps 2CS & 2CK					

Introduction to the Profession (ITP)

Practice of Medicine: Foundational communication, physical exam, clinical reasoning and presentation skills.
Goal: 4-year longitudinal clinical skills curriculum.

Foundations Biochemistry, Cell Biology, Genetics, Developmental Biology, and introduction to Anatomy, Histology, Pharmacology, Pathology, Immunology, Microbiology

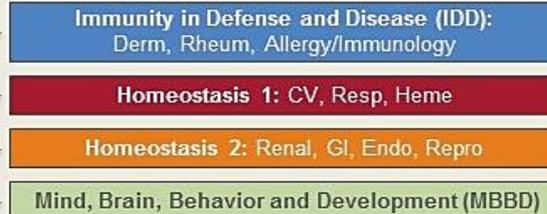
Essentials of the Profession: Evidence, Ethics, Policy, and Social Medicine Health Policy, Medical Ethics & Professionalism, Social Medicine, Clinical Epidemiology/Population Health

Transition to the Principal Clinical Experience: Intensive ramp-up clinical skills; clinical anatomy; introduction to imaging; clinical epidemiology and medical ethics; BLS, mask fitting, occupational health screening, HIPAA, and standard precautions; life on wards, digital professionalism, and PCE orientation.

Professional Development Weeks: Three one-week periods of assessment, feedback, self-reflection, advising to consolidate learning and generate individualized learning plans.

Recess

Organ Systems Courses: Including relevant anatomy, pathology, pharmacology, etc.



Advanced Experiences & Scholarly Project Advanced integrated science courses, Scholarly Project, clinical electives, sub-internship and student-as-teacher opportunities

USMLE Step 1, Steps 2CS & 2CK **Step 1:** Study Oct/Nov Year III; take by 12/31 Year III **Steps 2CS & 2CK:** Take CS by 11/1 and CK by 12/31 Year IV

More info: <http://hms.harvard.edu/departments/medical-education/md-programs/pathways>

Last updated 11/13/2015



You're *in*, Now What?

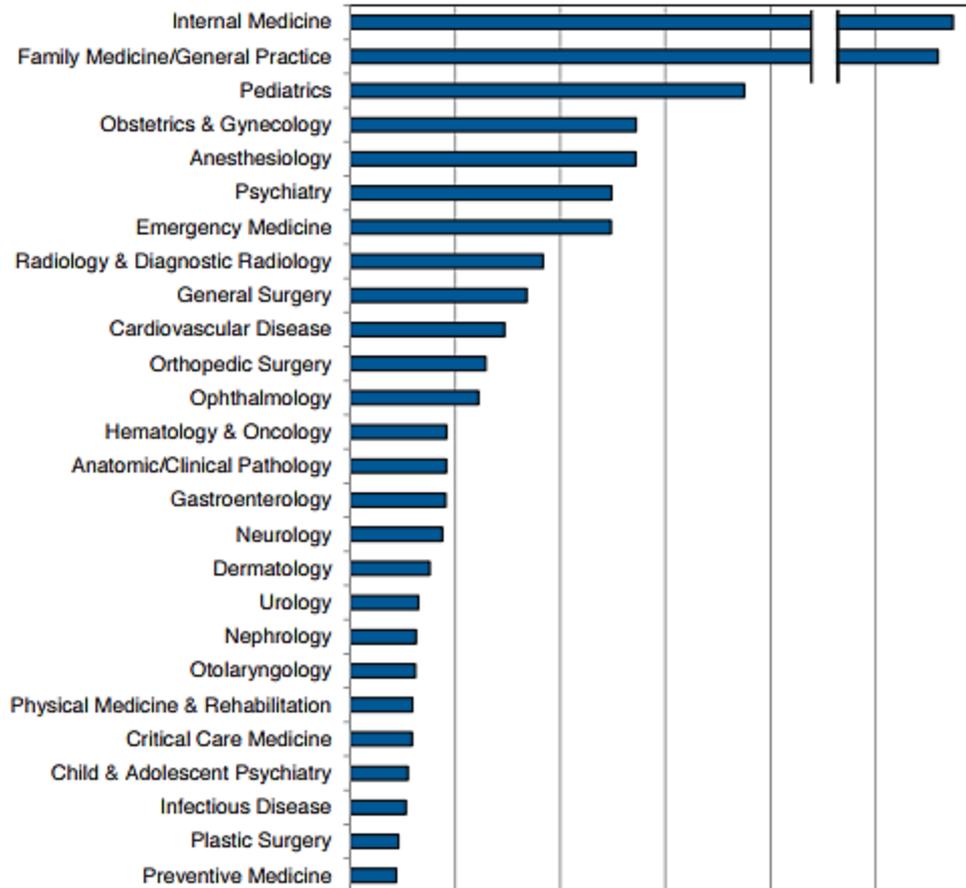


- **Join a study group early.** Study groups are essential. Not only do they help you study, but they also provide support and encouragement when things get rough.
- **Forget about “everyone for themselves.”** Medical school is a team effort. Think of it as being in a lifeboat. In general, the better each person in the lifeboat does, the better everyone does. The same goes for a medical school class.
- **Learn to ask for help.** It doesn't matter what undergraduate school you went to, how high your grades or MCAT scores were, or what your major was. Everyone starts medical school on even footing – and nearly everyone needs help somewhere along the way.
- **The *very* basic rules:** Listen carefully and accept all the help and support offered to you. Those medical students with good attitudes who are willing to be taught eventually succeed – no matter what.
- **Find a mentor *early*.** It is very important to find a mentor during medical school. Use the same technique of asking students in their junior and senior (clinical) years about the best clinical teachers. Once you have potential mentors' names, contact them to see if they are interested, compatible, and have the time to help you. It will be well worth your effort.
- **Prepare for residency/fellowship.** Now that you are a medical student, you need to think about the next step. Making the decision to go into medicine was the easy part. Medicine offers practitioners a myriad of opportunities, some well-known and some quite obscure. You need to begin investigating these early, so that you can make a reasonable career choice based on solid information and your own wants and needs.

Where are MDs Practicing?



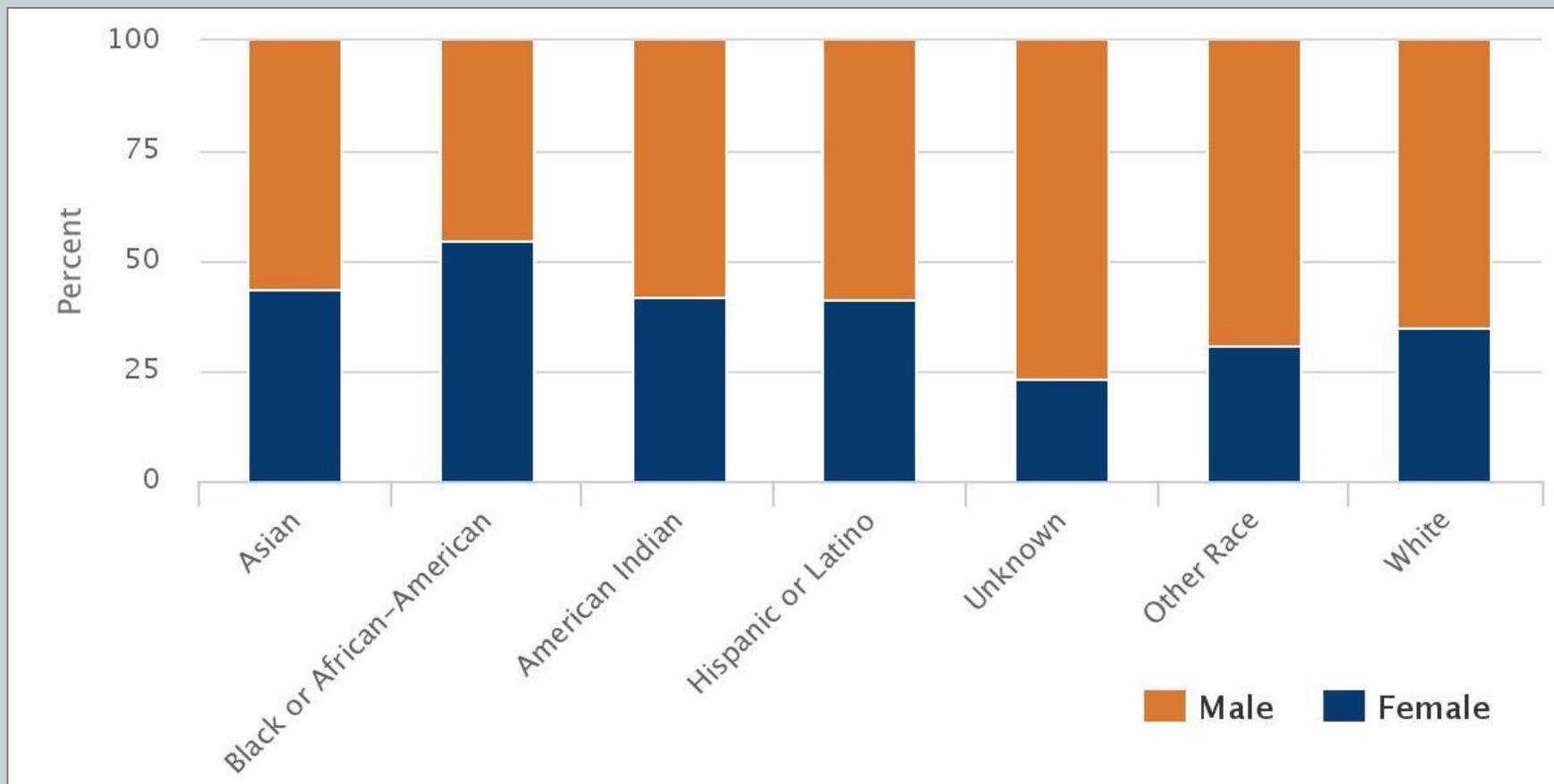
Figure 1.1 Specialties with the Largest Number of Active Physicians, 2013

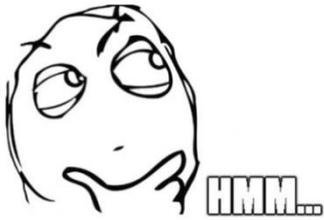


As of 2013, there were 829,962 active physicians in 41 specialties.



US MD Physicians by Race, Ethnicity, Sex 2013





Points to Ponder



- **It's okay to wait.** The average age of entering medical students is now 24, with a considerable number of students applying later. Not only do medical schools appreciate mature applicants who learned from their mistakes, but if you take time off you will have more time to prepare a more competitive application.
- **You may change your mind.** It's important to enter medical school with an open mind, ready to gain exposure to as many specialties as possible in order to make an informed decision about your career path. Having an inkling is one thing, but it can be detrimental to be rooted in one specialty from the start.
- **Stay on top of your finances.** Medical School is an exercise in delayed gratification. When your college friends are out of school buying cars and houses in their mid-20s, the typical medical student is living off student loans. Having good credit is necessary as a medical student. Good money habits start early, and how you spend while in medical school is a reflection of how you'll spend when you finally get that first job following your residency or fellowship. The goal should always be wealth creation.
- **Plan ahead to reduce medical school stress.** Dedication to a medical career is not enough to protect against the intense stress of medical school. Students who have tripped at some point in the past are those who need to plan ahead. If you have ever been recommended for counseling, psychotherapy or any kind of medical treatment for emotional concerns, please consider this carefully as you enter medical school. Rather than trying to hide these experiences, seek out support services at your new medical school. Even if you believe that your symptoms will never return, most medical school deans can provide examples of students for whom they did. The wise student will get the name of a good professional and contact them before needing help.

For More Information



- AAMC.org/Students/Aspiring/ for basic information about all aspects of being premed
- AAMC.org/Data/Facts/ for facts and figures about entering medical students
- AAMC.org/Students/Applying/Requirements/MSAR to order your online copy of the *Medical Schools Admissions Requirements (MSAR)*
- AAMC.org/Students/Applying/MCAT for information on how to get started with the *Medical College Admission Test (MCAT)*
- AAMC.org/Students/Applying/AMCAS to begin your *American Medical College Application Service (AMCAS)* application
- AMSA.org *The American Medical Student Association (AMSA)* is the oldest and largest independent association of physicians-in-training in the United States.
- AMSA.org/Publications/The-New-Physician/ *The New Physician Magazine* may be of particular interest.