

# Your Medical School Years: The Education Process

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*You think you'll be ready. You walk into a patient's room, white coat sharply creased, stethoscope neatly tucked into your pocket. You think back on how many times you practiced, the checklists you memorized, the lecture slides you pored over—and you think surely you're prepared. Until the moment you walk in. Your heart races, pounding so hard that when you press down to take the patient's pulse, the only one you can feel is your own.*

*Because to stand, even if only for a moment, as the authority figure at the foot of the bed, to shoulder, even if only briefly, the hopes and fears of another human—nothing really prepares you for that.*

*But of course, this is why you are here. It's terrifying at first. Slowly you realize the hours you spent on neuropathology have allowed you to read a radiology report on a head CT and understand it. When patients list their medications, the names are becoming familiar. The attending asks if you could hear the heart murmur. Tentatively, you answer yes, and then realize this time, you are sure.*

*Day by day, the new becomes familiar—the foreign, comprehensible. You start to see, you start to hear, you start to know. And you realize there will come a day—not today, not tomorrow, but someday—when it will be you who writes the report, who selects the prescriptions, who diagnoses the murmur. A day when you can do this.*

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## Undergraduate Medical Education: An Overview

At the core, all U.S. medical schools have the same purpose—to educate their students in the art and science of medicine, provide them with clinical experience, and, ultimately, prepare them to enter the next phase of medical training. That is why every school follows the same basic program, requiring students to acquire a basic foundation in the medical sciences, apply this knowledge to diseases and treatments, and master clinical skills through a series of clinical rotations. (Read more about Canadian medical schools in Chapter 14.)

That doesn't mean that all medical schools are alike. It's often said, "When you've seen one medical school, you've seen one medical school." Each institution establishes its own curriculum and course requirements, so, for example, a particular class required

by one institution is an elective course in another. Even when medical schools seem to offer identical courses, the content within them may differ, so some of the material covered in immunology in one school, for instance, is presented in pathology in another. The sequence in which courses are taken—and the method by which the content is taught—may differ as well. Beyond that, the processes by which students are graded also vary from school to school, with some institutions following a pass/fail system, others an honors/pass/fail system, and still others a letter grading system. And just as the culture, campus, and personality of the undergraduate schools you considered differed, they also differ among medical schools. The process you'll use to decide which medical school is the best fit for you and your needs will likely be similar to the one you used to choose your college.

Medical schools must meet very exacting standards to earn (and maintain) accreditation, as established by the Liaison Committee on Medical Education (LCME). The LCME, cosponsored by the AAMC and the American Medical Association, accredits medical school programs that grant the MD degree in the United States ([lcme.org](http://lcme.org)). (Accreditation by the LCME is required for schools to receive federal grants and to participate in federal loan programs. In addition, eligibility of U.S. students to take the United States Medical Licensing Examination [USMLE]—a discussion of which appears on page 32—requires LCME accreditation of their school. All medical schools listed in this guide are accredited by the LCME.)

Beyond accreditation requirements, the general educational structure and curriculum of most medical schools are similar. There is significant overlap between what has traditionally been referred to as the “preclinical” and “clinical” years—commonly, the first two and last two years of medical school, respectively.

## A Word About Preclinical Versus Clinical Years

Students typically concentrate their efforts on the scientific underpinnings of medicine during the first two years and apply and refine that knowledge during a series of rotations during the last two years. However, there is often an overlap in content between these two stages of medical education. It's increasingly common for a student to have some clinical exposure in the first year of medical school. Similarly, during the clinical years, students refine their understanding of underlying medical concepts and apply basic science knowledge. It's important, therefore, to recognize that preclinical and clinical content can—and does—intersect at any stage in the medical school experience.

### Building a Foundation of Knowledge

In almost all cases, you'll begin your medical school studies by learning how the human body is supposed to work—in terms of both structure and function. The focus will then shift to abnormal conditions and diseases, methods of diagnosis, and treatment options.

#### **Normal Structure and Function**

Before you learn about illnesses and ailments, you'll learn how the healthy body works. That's what you'll be studying right out of the starting gate, and your courses will be many—and varied. Typically, your basic classes will include gross and microscopic anatomy, physiology, biochemistry, behavioral sciences, and neurology.

#### **Abnormalities, Diagnostics, and Treatment**

After you've learned what “healthy” looks like (and acts like), the focus of your coursework will shift again, in structure and function. You'll study the full range of diseases and atypical conditions, methods by which diagnoses are made, and therapeutic principles and treatments. It's at this stage that you'll have classes in immunology, pathology, and pharmacology.

### **Other Topics**

You'll be exposed to a wide variety of other topics, such as nutrition, medical ethics, genetics, laboratory medicine, substance abuse, geriatrics, health care delivery systems, research, preventive medicine, human sexuality, and community health, to name a few. The subjects taught at medical schools are as varied, and potentially as numerous, as the institutions themselves.

And that's just part of the picture. There's much more to "building a foundation" than mastering the scientific basis of medicine. During this period of your medical education, you'll learn the basics of taking a patient history, conducting physical exams, interpreting laboratory findings, and considering diagnostic treatment and alternatives—in effect, readying yourself for the clinical rotations that follow in the second half of medical school.

Finally, keep in mind that practicing medicine is not all science—or even the application of science (such as that required to interpret lab results and figure out a course of treatment). Medical schools recognize that physicians practice in a social environment—one in which effective team building, collaboration, and communication skills are necessary. As a result, the very way students learn and are taught has evolved in recent years. (This is discussed in more depth on page 26 under "The Changing Face of Medical Education.")

### **What a Typical Curriculum May Include**

Although the specifics of curricula may differ from school to school, most of them follow the same basic structure. (The list below doesn't include all possible courses and clerkships.)

**Year 1: Normal structure and function**—Biochemistry, cell biology, medical genetics, gross anatomy, structure and function of human organs, behavioral science, and neuroscience

**Year 2: Abnormal structure and function**—Abnormalities of structure and function, disease, microbiology, immunology, pathology, and pharmacology

**Years 3 and 4: Clinical clerkships**—Generalist core: family medicine, internal medicine, obstetrics and gynecology, pediatrics, and surgery

**Other requirements:** neurology, psychiatry, anesthesiology, dermatology, urology, radiology, and electives

### **Acquiring Hands-On Experience Through Rotations**

A major component of your undergraduate medical education, typically during the third and fourth years, will be a series of clinical rotations that usually last from four to six weeks each. Under direct supervision of a faculty member, you'll get firsthand experience working with patients and their families in inpatient and outpatient settings.

#### **What You'll Do**

During a rotation, you'll be assigned to an outpatient clinic or inpatient hospital unit where you'll assume responsibility for "working up" a number of patients each week—collecting relevant data and information from them and presenting findings to a faculty member. Beyond that, you'll participate in the ongoing care of patients, either during hospitalizations or through the course of outpatient treatment. When appropriate, you'll interact not only with the patients themselves, but also with their families.

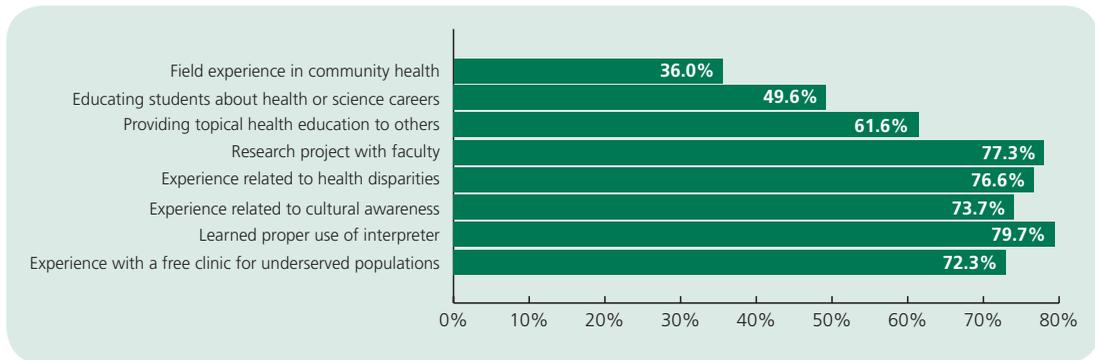
#### **And What You'll Learn**

There's no substitute for hands-on experience—and plenty of it. During the course of your rotations, you'll learn to apply basic science knowledge and clinical skills in diagnosing and treating patients' illnesses and injuries and will become adept at interacting with patients (and their families) as you provide information, answer questions, and prepare your patients for the likely outcome. At the same time, you'll become effective at working with all members of the health care team, whether at the bedside, during inpatient team discussions ("rounds"), or in case-based lectures and small-group discussions.

## Electives

Just like college, you'll get an opportunity to explore special interests by way of electives. Offered in basic, behavioral, and clinical sciences, as well as in basic and clinical research, electives are usually available during your final year of medical school (although you might be able to take them at other times). They may be completed on your own campus, at other medical schools through a "visiting student program," through federal and state agencies, in international settings, and through service organizations. The range of activities medical students participate in is broad. The most popular ones are shown in Figure 3.1.

**Figure 3.1. The most common elective and volunteer activities in medical schools, by percentage of students who participated.**



Source: AAMC's 2017 Graduation Questionnaire (GQ).

The AAMC **Visiting Student Learning Opportunities™** (VSLO™) program is designed for medical and public health students to pursue short-term learning opportunities in locations away from their home institutions. The VSLO program merged two existing visiting student programs: the Visiting Student Application Service (VSAS®) program that focused exclusively on U.S. domestic away electives and the Global Health Learning Opportunities (GHLO®) program that facilitated international mobility into the United States, from the United States to electives abroad, and from one non-U.S. location to another. VSLO streamlines the application process for both students and institutions. Visit the VSLO website for more information: [students-residents.aamc.org/attending-medical-school/article/visiting-student-learning-opportunities/](https://students-residents.aamc.org/attending-medical-school/article/visiting-student-learning-opportunities/).

## The Changing Face of Medical Education

You may have heard of Abraham Flexner, who wrote a groundbreaking report on medical education in 1910, when many medical schools were small trade schools unaffiliated with a university and a degree was awarded after only two years of study. Although the basics of his model have survived to the present day—mainly, a four-year program affiliated with a university—he never intended it to serve for more than a generation. After all, no one can predict the future.

Time has certainly proven that this is a successful model.

There's no way that Flexner could have anticipated the shifting demographics, technological advances, and evolving teaching techniques of the late 20th and early 21st centuries. According to the U.S. Bureau of the Census, the U.S. population over age 65 is expected to be almost 74 million by 2030—accounting for 1 in every 5 Americans. Demographics such as that, together with advanced technologies, scientific discoveries, and evolving teaching techniques, all contribute to significant changes in medical education. You'll experience firsthand the reforms taking place in medical education, in terms of both what you'll

learn and how you'll learn it. Your courses may range from cultural competency to health care financing, and you'll benefit from educational developments such as computer-aided instruction, virtual patients, and human patient simulation.

### What You'll Learn

You're going to wield a scalpel in anatomy class early on in medical school, just as students in our parents' and grandparents' generations did 30 and 60 years ago. Certain things stay the same. That type of effort aside, though, there are many significant changes in medical education content, and schools are continually revising their curricula to reflect advances in science, breakthroughs in medicine, and changes in society. For example:

- Consider the demographic shift we'll experience as the baby boomers age. Physicians will spend an increasing amount of time treating age-related problems such as Alzheimer's disease, heart failure, pulmonary disease, and bone disorders. As a result, most medical schools now include in their curricula courses on geriatrics, palliative care, pain management, complementary medicine, and other similar age-based material.
- Issues such as health literacy, nutrition, drug abuse, and domestic violence are now important components of medical education. Because many of these and other health problems are related to culture and lifestyle, medical schools have increasingly focused efforts on areas such as disease prevention, health promotion, population health, and cultural diversity.
- Medical schools are focusing increasingly on helping their students develop more effective communication skills, allowing them to interact successfully with a diverse group of patients. You'll be taught specifically how to assess family, lifestyle, and socioeconomic factors that may influence your patients' behavior or affect their care.

Then, of course, there are the advances in science and medicine themselves. As researchers make breakthroughs in genetic diagnoses and treatments, for instance, that new knowledge is incorporated into the medical school program. There are also expanded courses on medical ethics, examining some of the dilemmas physicians may face amid the advent of new technology; classes on financial decision making, in which students are taught to weigh the likely costs and benefits of various treatments; and sessions on evidence-based medicine and patient quality, providing students with the information and tools they will need to deliver the best possible care. Some examples of topics that are now included in medical education are shown in Table 3.1.

The topics described here are only an overview of some possibilities. The specific courses you'll take as a medical student will vary depending on the school.

### How You'll Learn It

Do you have an image of sitting in a large lecture hall, surrounded by hundreds of your peers? While you may experience that aspect of medical school, that method of teaching is being replaced (to a significant degree) by other techniques. Here are a few of the most widespread methods:

- The traditional lecture-based approach is increasingly giving way to student-

**Table 3.1. Examples of Topics in Medical Education**

Specialty	Number of Medical Schools Requiring the Topic*
Medical genetics	140
Cultural competence	140
Communication skills	141
Domestic violence/abuse	141
Pain management	140
Substance abuse	139
Prevention/health maintenance	139
Health care systems	139
Complementary/alternative health care	130
Medical economics	132

\*n=142.  
Source: 2015–2016 LCME Annual Medical School Questionnaire Part II.

centered, small-group instruction—similar to the case study teaching method common in both law and business schools. You may be assigned to small groups of students—overseen by a faculty member—in which you’ll focus on specific clinical problems. The aim here is to instill medical knowledge and skills, as well as help you build the communication and collaboration skills you’ll need as you continue your medical training and, ultimately, as a fully licensed physician.

- Fast-moving technological advances have certainly affected the medical school education program. You’ll probably use a computerized patient simulator to apply the basic sciences you’ve mastered to a clinical context and refine your diagnostic skills. These simulators, which are easily customized to replicate a wide range of situations, are currently part of the curriculum in most medical schools. They are often customized to cover many aspects of a clinical encounter, and they offer medical students easy access to a range of medical situations. Human patient simulators allow students to engage in emotional and sensory learning. These interactive experiences foster critical thought and effective communication.
- Another way medical schools use new technology is with computer-aided instruction and “virtual” patients. Here, you’ll apply newfound knowledge and skills via interactive web-based or software programs that simulate complex cases. Some advantages of computer-aided instruction are that it:
  - o Enables visualizing complex processes
  - o Allows independent exploration
  - o Offers easy access
  - o Costs relatively little

To learn more about the specific teaching methods of the medical schools you’re interested in, please see the applicable school listing on the Medical School Admission Requirements™ website ([aamc.org/msar](http://aamc.org/msar)).

## Determining How You Want to Practice Medicine

Required courses. Clerkships. Electives. There’s a lot occupying your time and energy as you advance through medical school. At the end of your third year and the beginning of your final year, you’ll prepare to apply to residency programs. But before you can apply, you must make some serious decisions about how you want to practice medicine and identify the additional medical training that will prepare you for that work. All this career planning is commonly summarized as “choosing a specialty” and “applying for residency.”

### Choosing a Specialty

Choosing a medical specialty is one of the most significant decisions you’ll make during medical school, and the process can be daunting. No one can prescribe which specialties are best for you. Making a good specialty decision requires you to be proactive. You’ll likely begin the process of figuring out which specialties align with your interests, talents, and passions soon after you enter medical school.

The first step in choosing a specialty involves exploring what you want in your medical career. You can do this by:

- Observing and evaluating what you enjoy and what makes you happy across your experiences before and during medical school
- Objectively considering your career preferences using the Careers in Medicine® (CiM) self-assessments
- Engaging in specific activities that can help with the decision, such as shadowing physicians to learn about the work they do and find out whether you’ll enjoy it

As a result of such efforts, you'll better understand your interests, values, skills, and other attributes, as well as your personal, educational, and career goals. This information will be most useful as you gain firsthand exposure to specialties during your clinical rotations, which occur in the third and final year of medical school. These rotations will be your most concentrated opportunity to "try on" different specialties. If by the start of your rotations you've already thoroughly considered who you are and what you want for your career, your rotations will provide much more insight for you.

## Applying for Residency

Once you've chosen your specialty or specialties of interest, you must research and select residency programs in those specialties, then compete for a position in those programs. Much like the application process for medical school, you'll complete an application, craft a personal statement, and submit transcripts and letters of evaluation. An application service, such as the AAMC **Electronic Residency Application Service**<sup>®</sup> (ERAS<sup>®</sup>, [aamc.org/eras](http://aamc.org/eras)), usually facilitates this process by electronically sending your application portfolio to your chosen residency programs. The application service(s) you use are determined by the specialty or specialties you're applying to (though ERAS is the application service that includes the most specialties and is used by the most applicants).

Once you've submitted your application portfolio to your chosen residency programs, these programs will review your materials and decide whether to invite you for an on-site interview. Once all interviews are complete, both residency applicants and individual programs rank their preferences and submit them to a matching service. The matching service runs an algorithm to compare the applicants' list of preferred programs with the programs' list of preferred applicants. After the algorithm runs, you'll learn if you've "matched" to a residency program.

The matching service that includes the most specialties and is used by the most applicants is the **National Resident Matching Program**<sup>®</sup> (NRMP<sup>®</sup>, [nrmp.org](http://nrmp.org)), which runs its match the third week in March. That Friday—commonly known as Match Day—is met with great anticipation, as 17,000 medical school seniors learn where they'll spend the next several years of training. (These 17,000 students are the graduates of medical schools that grant the MD degree. In addition, 18,000 graduates of osteopathic schools [those granting the DO degree] and Canadian and international medical schools compete for residency program assignments through the NRMP. To learn more about ERAS and NRMP, go to [aamc.org/eras](http://aamc.org/eras) and [nrmp.org](http://nrmp.org). There is also a specific match solely for students at DO-granting schools through the AOA Intern/Resident Registration program. For more information, go to [natmatch.com/aoairp](http://natmatch.com/aoairp).)

You can view live-streaming sessions of Match Day ceremonies at many medical schools. Look for links posted on Facebook ([facebook.com/aamcpremed](https://facebook.com/aamcpremed)) and Twitter (@AAMCPreMed) for more details. Other match programs commonly used by students include (but aren't limited to) the San Francisco Residency and Fellowship Matching Services ([sfmatch.org](http://sfmatch.org)) and Military Graduate Medical Education ([militarygme.org](http://militarygme.org)).

## Getting Help

Determining which career path is right for you, as well as navigating the specialty choice and residency application and match process, is a lot for someone to manage alone—and you shouldn't. Many resources and people (including your student affairs office, mentors, and advisors) are available to help you make wise decisions about your future career.

One key resource is **Careers in Medicine** (CiM), a career planning program created by the AAMC and available to medical students and medical schools. Through its website ([aamc.org/cim](http://aamc.org/cim)), CiM provides information, best practices, data, and tools to help you:

- Identify career goals
- Explore specialty and practice options

- Choose a specialty
- Select and apply to residency programs
- Learn to make good career decisions

Here are some examples of what the CiM website offers:

- Self-assessments that help you explore your interests, values, and skills so that you can identify specialties that might fit you well
- A database of clinical and research opportunities available to you during medical school
- Profiles of more than 120 specialties, including
  - o Descriptions of the work
  - o Salary and lifestyle information
  - o Workforce data
  - o Prerequisites and length of training for residency and fellowship programs
  - o Residency interview timing
  - o More than 1,000 links to additional specialty information
- Profiles of about 9,000 residency and fellowship programs and a tool to help you evaluate programs
- Information about various practice settings
- Lots of guidance and advice

For more information about how to access CiM, visit [aamc.org/cim](http://aamc.org/cim).

CiM works in conjunction with medical schools' career advising programs. Medical schools are required to provide advisors formally or informally to help students plan their academic and professional career. These services are often organized and delivered by the student affairs office or career center and can include workshops, specialty interest groups and panels, networking receptions, and other career-related resources and opportunities.

Sometime in your first year, your medical school will likely start talking to you about exploring your career options and planning your medical career as well as explaining the career-planning and career-advising services it offers. (If you'd like to start exploring your career sooner, contact your school's student affairs office.) Once your third year begins, your school will likely provide more intensive support by, for example, explaining the processes of and noting deadlines for choosing a specialty and applying for residency. This valuable information will come in various forms, including emails and in person from your student affairs office, your career services office, and your advisors.

Career planning will occur throughout your medical school experience, often within your curricular activities. As you complete your medical degree, faculty and advisors will be a source of trustworthy advice that will help guide you toward a satisfying career as a physician.

## More Medical Training: Graduate Medical Education

Once you've graduated from medical school, you can claim the "doctor" title, but you can't yet practice medicine independently. You're required to progress from undergraduate medical education (that is, medical school) to graduate medical education (GME).

We won't go into detail about postgraduate work here, since you won't need the details until later. But, in a nutshell, the primary purpose of graduate medical education is to give medical school graduates the skills and knowledge they need to become competent, independent physicians in their desired specialty.

**Table 3.2. U.S. Residents by Specialty, 2016–2017**

Specialty	Number of U.S. Residents
Allergy and Immunology	279
Anesthesiology	5,591
Colon and Rectal Surgery	83
Dermatology	1,260
Emergency Medicine	5,916
Family Medicine	10,359
Hospice and Palliative Medicine	226
Internal Medicine	23,664
Medical Genetics	73
Neurological Surgery	1,337
Neurology	2,305
Nuclear Medicine	84
Obstetrics and Gynecology	5,061
Ophthalmology	1,349
Orthopedic Surgery	3,617
Otolaryngology	1,501
Pain Medicine	287
Pathology-Anatomic and Clinical	2,245
Pediatrics	8,661
Physical Medicine and Rehabilitation	1,268
Plastic Surgery	348
Plastic Surgery-Integrated*	672
Preventive Medicine	279
Psychiatry	5,153
Radiation Oncology	714
Radiology-Diagnostic	4,460
Sleep Medicine	132
Surgery-General	8,312
Thoracic Surgery	215
Thoracic Surgery-Integrated*	149
Urology	1,236

\*The most popular subspecialties in 2016–2017 in internal medicine were cardiovascular disease (2,771), hematology and oncology (1,757), pulmonary disease and critical care medicine (1,677), gastroenterology (1,558), and nephrology (970).

\*\*Integrated programs differ from subspecialty programs in that they include core surgical education.

Source: AAMC Data Book, 2017, for the 2016–2017 academic year, and the AAMC Careers in Medicine® program.

## Residency and Fellowship Training

Residency training—the first level of GME—ranges in length from three to eight years (sometimes more) and is necessary for board certification (see Figure 3.2). Residency programs are conducted primarily in clinical settings (for example, in hospitals, outpatient clinics, community health centers, and physicians' offices) and require residents to participate fully in patient diagnoses and treatment. As a resident, you'll work under the supervision of physician faculty as you develop experience in your chosen specialty, become proficient with common and uncommon illnesses and conditions, attend conferences, teach less-experienced colleagues, and generally adjust to the demands of practicing medicine.

Just as medical schools vary, so do residency programs. Depending on the specialty you choose to pursue, you might complete a preliminary year of broad clinical training before focusing on your specialty. This practice is common in anesthesiology, dermatology, and radiology. In other fields, such as family medicine and pediatrics, you'll enter the specialty track directly. (Your medical school advisor and the Careers in Medicine program can provide more information as you approach this stage of your medical education.)

After residency training, you can continue your graduate medical education by completing fellowship training. This second level of GME usually prepares physicians to subspecialize, but some fellowships are for training in other areas, such as research or education administration.

Graduate medical education can be a challenging and rewarding stage of your career. Many physicians look back on their residency and fellowship years as a time when they gained invaluable lessons that they carry with them throughout their career.

## Interprofessional Education

The delivery of medical care is increasingly a team-based, collaborative effort that includes doctors, nurses, pharmacists, physical therapists, and other health care providers. Caring for a patient

effectively and efficiently depends on practitioners from all disciplines becoming familiar with one another's roles, perspectives, languages, and communication styles.

Because medical educators across the levels of medical education want to help you develop that knowledge and ability, your medical education is likely to involve some form of "interprofessional education." You'll learn to share resources, work as a unit, or participate in other activities that encourage interaction among various categories of health care providers. Through these exercises, you'll all become more adept and successful working as a team and, ultimately, be able to deliver higher-quality patient care.

## Licensure and Certification: Ready to Practice Independently

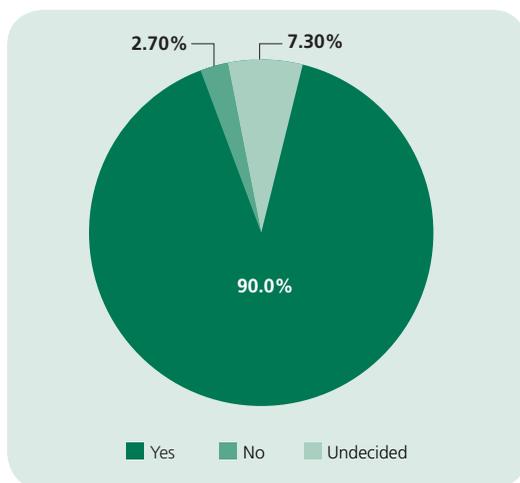
All medical school graduates must demonstrate command of the same fundamental concepts before becoming licensed physicians. Physicians' mastery of these fundamentals is ensured through the standards of the **National Board of Medical Examiners** (NBME) and the **Federation of State Medical Boards** (FSMB). These two bodies jointly sponsor the **United States Medical Licensing Examination** (USMLE). This exam is the final assessment of your ability to assume independent responsibility for delivering medical care and is administered in three steps, each at a particular stage of medical education:

- **Step 1:** Usually taken at the end of your second year of medical school, Step 1 tests whether you understand and can apply sciences basic to the practice of medicine. Its focus is on principles and systems of health, disease, and methods of therapy.
- **Step 2:** Many medical schools require you to take and pass Step 2 before you graduate. It's actually two tests in one—the first evaluates your clinical knowledge (CK) and the second your clinical skills (CS). Basically, Step 2 assesses your ability to provide patient care under supervision.
- **Step 3:** After you've completed your first year of residency training, you're eligible for Step 3—the concluding test that determines your readiness to apply your medical knowledge and clinical skills without supervision, with an emphasis on patient management in outpatient settings.

After you complete your educational and training programs and achieve passing scores on the USMLE, you can apply for licensure in any of the 50 states, 10 Canadian provinces, 3 U.S. territories, and the District of Columbia.

But ... there is one additional step: certification. Although it's not required for medical practice, as licensure from a state or provincial medical board is, certification in a specialty is strongly encouraged (see Table 3.2). Physicians apply voluntarily for this additional credential, which is granted by the American Board of Medical Specialties (ABMS) and involves a comprehensive exam. (Those who have satisfied all ABMS requirements are certified and known as "diplomates" of the specialty board.) Most medical school graduates plan to become certified in a medical specialty (see Figure 3.2).

**Figure 3.2. Medical school graduates' answers when asked whether they planned to become certified in a specific specialty.**



Source: AAMC's 2017 Graduation Questionnaire (GQ).

## Continuing Medical Education: Lifelong Learning

Finally, as you likely have realized, your medical education will be a lifelong process. As medicine continues to advance and change, you'll be given the opportunity to learn new skills to stay current with exciting and innovative developments.

The fast pace of change in medicine makes continuing education essential, so most states require participation in accredited continuing medical education (CME) activities. Physicians participate in CME programs throughout their careers, ensuring that they stay up-to-date with the rapid advancements in their specialties and they maintain their clinical competence. Offered by medical schools, teaching hospitals, and professional organizations, these CME programs are reviewed by the **Accreditation Council for Continuing Medical Education** (ACCME) to ensure that high standards are achieved and upheld.

CME reflects a commitment to lifelong learning that's a hallmark of the medical profession. If you're interested in what your CME efforts will entail, go to [accme.org](http://accme.org).



Worksheets at the end of chapters in this guide are available in fillable PDF format at [aamc.org/msar-resources](http://aamc.org/msar-resources).

## WORKSHEET 3.1

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### Thinking About Medical Specialties

First things first: You do not need to know your medical specialty now—or even need to be thinking about it. However, many applicants envision themselves in a particular specialty before day one of medical school. These visions can often be tied to the shadowing or medically related volunteer experiences that many applicants participate in to help prepare for medical school. If you're one of these applicants, it likely means you're already familiar with one or more medical specialties.

Now, the second thing to keep in mind: Changing your mind about what type of physician you want to be is not a sign that you're less committed to the profession. We know from responses to the AAMC Matriculating Student Questionnaire and Graduation Questionnaire that most medical students are either undecided about their specialty preference or change their minds about their specialty preference over the course of medical school. It's natural and expected that your choices will evolve as you progress through medical school and gain new educational and clinical experiences. So, keep your options open to allow for something amazing you have yet to encounter to inspire you and change your life. And enjoy the reprieve of waiting a little while to finalize your specialty choice.

That being said, if you're an applicant with some exposure to specialties before medical school, you may find it helpful to keep a journal or notes about your experiences while they're fresh in your mind, which you can use once you enter medical school and begin the Careers in Medicine program ([aamc.org/cim](http://aamc.org/cim)). You'll likely find it helpful to refer back to these notes once you've matriculated and as you progress through medical school.

Here are some prompts to help you consider your specialty experiences:

- Do you have a specialty or specialties in mind? \_\_\_\_\_  
\_\_\_\_\_
- What is your experience with that specialty? \_\_\_\_\_  
\_\_\_\_\_
- Have you shadowed in that specialty with different physicians or in different settings? \_\_\_\_\_  
\_\_\_\_\_
- Have you shadowed in more than one specialty? If so, list here: \_\_\_\_\_  
\_\_\_\_\_
- Take a moment to compare your experiences. Write down how they were similar and different and how you felt about each. \_\_\_\_\_  
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You can also visit your school's career center for more guidance about exploring medical careers. A career center may be able to help you find shadowing and other opportunities that can expose you to career options. You could also speak with people who have already completed any experiences you're considering.

**A note about shadowing:** In recent years, due to the Health Insurance Portability and Accountability Act, or HIPAA, it may be more difficult to obtain permission to shadow a physician. There are programs that facilitate paid experiences domestically and abroad. They can be quite expensive. Be certain to check with your prehealth advising office to see if they have experience with a particular program to make sure it's legitimate and safe.

For more information about shadowing, lab, and volunteer experiences, see:

- **Shadowing a Doctor**—[students-residents.aamc.org/applying-medical-school/article/howgetlabexperience](http://students-residents.aamc.org/applying-medical-school/article/howgetlabexperience)
- **Getting Lab Experience**—[aamc.org/students/aspiring/experience/280610/labexperience.html](http://aamc.org/students/aspiring/experience/280610/labexperience.html)
- **Finding Health Care-Related Volunteer Opportunities**—[students-residents.aamc.org/applying-medical-school/article/finding-health-care-related-volunteer-opportunities](http://students-residents.aamc.org/applying-medical-school/article/finding-health-care-related-volunteer-opportunities)