

Pediatrician

Snapshot

Career Cluster(s): Health Science

Interests: Medicine, Science, Working with children

Earnings (2018 Median): \$183,240 yearly

Employment & Outlook: Faster Than Average growth

OVERVIEW

Sphere of Work

A pediatrician is a medical doctor who specializes in the health and wellbeing of children. Pediatricians work to prevent, diagnose, and treat infections, diseases, behavioral and developmental problems, and injuries in children. They also attempt to identify and/or prevent infant and child mortality, chronic conditions, and other dysfunctions. They strive to more fully understand the ways in which environmental and genetic factors contribute to illnesses in children. All pediatricians actively work toward defending children against a wide range of health and safety hazards. Lifelong learning



is a job requirement, since pediatricians must be knowledgeable about constantly changing research and treatment methods, as well as common diseases and behavioral problems.

Work Environment

Pediatricians usually work in private practice, and experience comfortable, clean, quiet working conditions. Those who operate out of a busy hospital or clinic often work in loud, bright, and hectic environments. Private-practice pediatricians generally maintain a standard forty-hour work week, while hospital pediatricians may work long shifts at night or on weekends, and may be on call. Pediatricians must be in good physical condition, as they may work long hours or stand for most of a work day. They should have excellent vision and hearing and good hand-eye coordination to perform exams and use instruments like stethoscopes.

Profile

Working Conditions: Work Indoors
Physical Strength: Light Work
Education Needs: Medical Degree
Licensure/Certification: Required
Opportunities for Experience: Military Service, Volunteer Work
Holland Interest Score*: ISR

* See Appendix A

Occupation Interest

People interested in pursuing a career in pediatric medicine should possess a desire to help improve the lives of children through medical prevention and treatment, show good judgment, and be decisive as well as responsible and highly motivated. They should be good listeners, and

they must be able to remain composed when interacting with anxious parents and family members or upset or unruly children. Pediatricians should be committed to seeking and finding medical solutions that will ultimately benefit the physical and mental development of infants, children, and young adults. They are well compensated for their work, but must undergo years of rigorous training and be willing to work extra hours as needed to resolve urgent medical issues.

A Day in the Life—Duties and Responsibilities

Pediatricians who practice general pediatrics see and evaluate infants, children, and teenagers with various medical conditions and illnesses on a daily basis. Once a pediatrician has thoroughly assessed and diagnosed a child's medical situation, he or she will decide how to proceed with treatment.

Pediatricians are responsible for the general management of both serious and minor health problems, as well as acute and chronic illnesses. They conduct examinations and decide whether or not referral to a specialist is needed. They also consult with colleagues such as nurse practitioners, surgeons, and family practitioners to determine appropriate courses of action for the patients they see. They offer parents and patients advice on medical challenges and preventative measures, and they monitor the development of children with specific conditions. They document a patient's medical history, explain exam and lab results, and confer with patients about nutrition, diet, and how to achieve a healthy lifestyle. Sometimes they must prescribe appropriate medications and provide necessary immunizations and vaccinations. Because children are legal minors and require a guardian to make medical decisions, pediatricians must often deal extensively with parents, family members, and guardians of patients.

Some pediatricians choose to specialize in a particular area of children's medicine, such as adolescent medicine, pediatric surgery, pediatric radiology, pediatric cardiology, and others. These doctors assume many of the same responsibilities as general pediatricians, but narrow their focus to concentrate in depth on a specific health issue or category of issues.

Duties and Responsibilities

- **Examining patients**
- **Diagnosing diseases and conditions in infants, children, and adolescents**
- **Ordering or performing various tests and procedures**
- **Prescribing and administering medications and treatments**
- **Teaching patients and their parents or guardians about preventative medicine**
- **Keeping abreast of developments in the field**

WORK ENVIRONMENT

Relevant Skills and Abilities

Analytical Skills

- Analyzing information

Communication Skills

- Speaking and writing effectively
- Listening attentively
- Expressing thoughts and ideas clearly

Interpersonal/Social Skills

- Being able to remain calm under pressure
- Being able to work independently
- Cooperating with others
- Providing support to others
- Working as a member of a team
- Being sensitive to others
- Being patient
- Having good judgment
- Being objective
- Being persistent

Organization & Management Skills

- Handling challenging situations
- Making decisions
- Managing people/groups
- Paying attention to and handling details
- Performing duties which change frequently
- Managing time
- Demonstrating leadership

Planning & Research Skills

- Developing evaluation strategies
- Using logical reasoning
- Identifying problems

Physical Environment

Pediatricians who work in hospitals or clinics are subject to noisy, stressful, and busy environments. They must quickly react to shifting priorities, numerous patients, and emergencies. Pediatricians who have their own practices usually work out of a clean, pleasant, and well-lit office.

Human Environment

Pediatricians interact with children, other physicians, nurses, medical assistants, and administrative staff members on a regular basis. They also interact with patients' family members and legal guardians. They may employ research assistants with whom they work closely to study the prevention of diseases.

Technological Environment

Pediatricians use a wide variety of tools and equipment to assist them in the examination, diagnosis, and treatment of young people. They use stethoscopes, otoscopes (to look into the ears), tongue depressors, blood pressure cuffs, forceps, laryngoscopes (to look down the throat), and other instruments.

Relevant Skills and Abilities

- Identifying resources
- Gathering information
- Solving problems

Technical Skills

- Performing scientific, mathematical and technical work

Other Skills

- Working in a medical setting
- Working with children

They must also use telephones, computers, the Internet, and email, as well as specialized medical software.

EDUCATION, TRAINING, AND ADVANCEMENT**High School/Secondary**

High school students who wish to become pediatricians can prepare themselves by streamlining their studies to focus on the basic sciences, including organic and inorganic chemistry, biology, anatomy, psychology, and physics. They should also focus on mathematics, English, communications, nutrition, and physical education. Learning a commonly used foreign language, such as Spanish, is useful, as some pediatricians may have bilingual patients or patients who are English-language learners. High school students should make an effort to join extracurricular science clubs or school groups. On their own time, students can visit or volunteer at local hospitals, clinics, and family practices to become familiar with the duties and responsibilities of a pediatrician. .

Suggested High School Subjects

- Algebra
- Biology
- Chemistry
- College Preparatory
- English

- Geometry
- Health Science Technology
- Humanities
- Mathematics
- Physics
- Physiology
- Psychology
- Science
- Sociology
- Statistics
- Trigonometry

Famous First

The first popular book on pediatrics was *The Care and Feeding of Children: A Catechism for the Use of Mothers and Children's Nurses* (1894), by Dr. Luther Emmett Holt, head of New York Babies Hospital (pictured). Although the book became a best seller and was widely used for decades, its author was an advocate of the science of eugenics, or improvement of the human race through selective breeding. As such, Holt discouraged reproduction by those deemed to be “unfit, diseased, degenerate, or defective.”

Source: https://en.wikipedia.org/wiki/Luther_Emmett_Holt



College/Postsecondary

After high school, prospective pediatricians go on to attend a college or university that will eventually award them a bachelor's degree in premedical studies. Candidates must then apply to a medical school. Most medical schools require applicants to have studied specific courses in medical sciences at the undergraduate level. In addition to these curriculum requirements, medical schools usually appreciate a student who is well rounded (meaning he or she has also taken liberal arts courses). Premed students should demonstrate practical experience in the sciences, such as biomedical research and volunteer work. They must also receive a passing score on the Medical College Admission Test (MCAT) in order to be accepted into medical school. Medical schools are highly selective, and the application process is extremely competitive; many students who apply to medical

schools are rejected. However, many medical schools have been accepting more applicants because of the anticipated increase in demand for physicians.

Most medical programs focus on classroom and laboratory instruction in the sciences, particularly anatomy, physiology, biochemistry, pathology, and pharmacology. After pediatrics students complete a four-year graduate degree program, they must complete three to eight years of an internship or residency. Pediatric specialists may also complete additional training in their chosen field.

Related College Majors

- Anatomy & Physiology
- Bioscience
- Child Development
- Medicine (M.D.)
- Osteopathic Medicine
- Pre-Medicine Studies

Adult Job Seekers

People become pediatricians only after a total of at least twelve years of combined study and medical training. Once this training is complete and pediatricians obtain licensure, they often seek employment with the hospitals or clinics where they completed their residency or internship. Others may start private medical practices, either independently or with a small group of doctors. New pediatricians usually enter a competitive job market; however, those who choose to practice in medically underserved areas should have no trouble attracting new patients.

Professional Certification and Licensure

Pediatricians must graduate from an accredited medical school, successfully pass a licensing examination, and complete one to seven years of formal graduate medical training in order to become certified. Specific requirements concerning professional certification for pediatricians vary by state.



Additional Requirements

The study of medicine is a strenuous and time-consuming endeavor, and prospective pediatricians will need to be highly motivated, with the physical and emotional stamina necessary to successfully complete many years of education and training. A pediatrician's job can be especially challenging because he or she must work with young patients who cannot always properly communicate their health problems and conditions. Therefore, pediatricians must be extremely patient, friendly, and reassuring, and should enjoy spending time around adolescents, infants, children, and young adults.

Fast Facts

It's age 16—not 18, when you might expect—when children gain their own medical authority. Typically, that's also the age they stop seeing a pediatrician.

Source: healthresearchfunding.org

The word *pediatrics* and its cognates all mean “healer of children”; they derive from two Greek words: *παῖς* (pais “child”) and *ιατρός* (iatros “doctor, healer”).

EARNINGS AND ADVANCEMENT

Wages for physicians and surgeons (of whom pediatricians are a part) are among the highest of all occupations, with a median wage equal to or greater than \$208,000 per year.

Median annual wages May 2018

Physicians and surgeons: This wage is equal to or greater than \$208,000 per year.

Health diagnosing and treating practitioners: \$80,990

Total, all occupations: \$38,640

Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

Median wages showing the differences in pay between types of physicians and surgeons are not available, but mean (average) annual wages for physicians and surgeons in May 2018 were as follows:

Anesthesiologists	\$267,020
Surgeons	\$255,110
Obstetricians and gynecologists	\$238,320
Psychiatrists	\$220,380
Family and general practitioners	\$211,780
Physicians and surgeons, all other	\$203,880
Internists, general	\$196,490
Pediatricians, general	\$183,240

Many physicians and surgeons work long, irregular, and overnight hours. Physicians and surgeons may travel between their offices and hospitals to care for their patients. While on call, a physician may need to address a patient's concerns over the phone or make an emergency visit to a hospital or nursing home.

EMPLOYMENT AND OUTLOOK

Pediatricians held about 28,490 jobs nationally in 2018. Employment of pediatricians is expected to grow faster average for all occupations through the year 2028 (about 7 percent). This is due to the continued growth of the health-care industry. Demand for all physicians will continue to increase as consumers are looking for high levels of care using the latest technologies, tests, and therapies.

Newly trained pediatricians are likely to experience competition as they seek to begin a practice. Those who are willing to locate in inner cities, rural locations and other areas where doctors are not in oversupply should have the least difficulty.

Percent change in employment, Projected 2018–28

Health diagnosing and treating practitioners: 13%

Physicians and surgeons: 7%

Total, all occupations: 5%

Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

Related Occupations

- Cardiologist
- Neurologist
- Physician
- Radiologist
- Surgeon

Related Military Occupations

- Physician & Surgeon

Conversation With . . .
DR. HERBERT O. MATHEWSON

Pediatrician (recently retired)
Hyannis Pediatric Group
Hyannis, Massachusetts
Pediatrician, 35 years

1. What was your individual career path in terms of education/training, entry-level job, or other significant opportunity?

I broke my leg playing football in high school and spent several days in the hospital. It looked like the people who worked there were having fun, so I got a summer job there. I spent most of my time scrubbing the operating room floor, but I got to know the surgeons and nurses. They inspired me to pursue a career in medicine.

My undergraduate degree from Cornell University is in history, but I took a lot of science courses as well, especially in chemistry.

I attended Cornell University Medical College in New York City for four years and after graduating I completed a one-year internship at Strong Memorial Hospital in Rochester, New York, splitting my time between a medical and pediatric rotation. This was during the Vietnam War. I completed my service requirements by spending two years at the National Institutes of Health in Bethesda, Maryland. I completed my medical training at Massachusetts General Hospital in Boston, where I was a resident in pediatrics for three years.

I always liked kids. It impressed me that kids are resilient and recover and go on to great futures. It's just more fun having them as patients. After my residency, I got board certified in pediatrics and passed the state licensing exam.

I went to work for the Hyannis Pediatric Group on Cape Cod, where I spent most of my career. I also served two years as chief of pediatrics for Cape Cod Hospital and was the first medical director of Cape Cod Hospital, a position I held for 12 years.

Even then I always put in one day a week at the pediatric practice. I think it's very important for physician administrators to keep a clinical practice. It attaches them to reality.

I retired from the pediatric group in Hyannis 12 years ago, but I continued to work one day a week as a pediatrician in Quincy, Massachusetts, until two months ago.

2. What are the most important skills and/or qualities for someone in your profession?

You have to be good in science. These days it's also helpful to be very good at mathematics and to be able to understand statistics and graphs. I think having a well-rounded liberal arts education is important. You learn how to read. You learn how to write.

You need to hone your decision-making skills. Every day a physician is asked to make critical decisions with limited data. It also helps if you are able to tolerate ambiguity. Patients come in with vague symptoms and vague problems. It can take a while to figure out what is going on and what to do about it.

This job calls for a sense of humor. Kids say what they think. It may set you back a bit.

3. What do you wish you had known going into this profession?

I went into pediatrics because I liked it. It took me a few years to discover primary care physicians, especially those who work with children such as pediatricians, don't make as much money as other specialties. It would not have changed my decision, but I was completely naive about that.

4. Are there many job opportunities in your profession? In what specific areas?

There will always be a need for primary care physicians, including pediatricians. Primary care physicians are scarce.

The fastest growing specialty in the U.S. is the hospitalist, a doctor who works for and at a hospital, seeing patients in their rooms. Included in that is a whole subspecialty of pediatric hospitalists.

There are alternatives to being a pediatric doctor. You can be a pediatric nurse practitioner or pediatric physician assistant and work in a hospital or office. It's a less rigorous training program than getting a medical degree—and it's less expensive.

My daughter is a physician assistant and she diagnoses patients and prescribes medications. The trend now is to refer to people who deliver primary care as primary care providers—that includes physicians, nurse practitioners and physician assistants.

5. How do you see your profession changing in the next five years? How will technology impact that change, and what skills will be required?

Telehealth has progressed so much that there are hospitals—including children's hospitals—where intensive care units are run by nurses who are connected by

electronics to physicians at universities. The doctors review information and monitor situations from their offices. Now everything can be transmitted electronically.

One trend I'd like to see expand is when private medical schools provide tuition-free education, paid for by their endowments. Huge medical school loans scare some people away from the profession.

Pediatrics has always been a specialty that focuses on preventive medicine. That will become even more pronounced in the future. The emphasis now is on the health of populations and promoting healthy lifestyles. Pediatricians increasingly are called on to help with behavioral issues as well. There's less of an emphasis on infectious disease, thanks to the development of vaccines.

6. What do you enjoy most about your job? What do you enjoy least about your job?

What I liked most about the job was the kids of course. I didn't like all the telephone calls at nights and on the weekends. Now most practices use on-call services during non-business hours.

7. Can you suggest a valuable "try this" for students considering a career in your profession?

Follow a pediatrician for a day. Get a job or volunteer at a hospital. Some hospitals have internship programs for high school students.

SELECTED SCHOOLS

Many medical schools have programs in pediatrics. Below are listed some of the more prominent institutions in this field.

Baylor College of Medicine

1 Baylor Place
Houston, TX 77030
713.798.4951
www.bcm.edu

Harvard Medical School

25 Shattuck Street
Boston, MA 02115
617.432.1000
hms.harvard.edu

Johns Hopkins University

School of Medicine
733 N. Broadway
Baltimore, MD 21205
410.955.3182
www.hopkinsmedicine.org

Stanford University

School of Medicine
291 Campus Drive
Stanford, CA 94305
650.725.3900
med.stanford.edu

University of California, San Francisco

UCSF School of Medicine
513 Parnassus Avenue
San Francisco, CA 94143
415.476.9000
meded.ucsf.edu

University of Cincinnati

College of Medicine
231 Albert Sabin Way
Cincinnati, OH 45229
513.558.4704
www.med.uc.edu

University of Colorado, Denver

School of Medicine
13001 E. 17th Place
Aurora, CO 80045
303.724.8025
www.ucdenver.edu/academics/colleges/medicalschoo

University of Pennsylvania

Perelman School of Medicine
3620 Hamilton Walk
Philadelphia, PA 19104
215.662.4000
www.med.upenn.edu

University of Pittsburgh

School of Medicine
3550 Terrace Street
Pittsburgh, PA 15261
412.648.9891
www.medschool.pitt.edu

University of Washington

School of Medicine
1959 N.E. Pacific Street
Seattle, WA 98195
206.685.9232
www.uwmedicine.org

MORE INFORMATION

American Academy of Pediatrics

141 Northwest Point Boulevard
Elk Grove Village, IL 60007
847.434.4000
www.aap.org

**American Board of Medical
Specialties**

222 N. LaSalle Street, Suite 1500
Chicago, IL 60601
312.436.2600
www.abms.org

American Board of Pediatrics

111 Silver Cedar Court
Chapel Hill, NC 27514
919.929.0461
www.abp.org

American Medical Association

515 N. State Street
Chicago, IL 60654
800.621.8335
www.ama-assn.org

**International Pediatrics Association
Saint Louis University**

1465 S. Grand Boulevard
St. Louis, MO 63104
314.577.5642
www.ipa-world.org

Pediatric Professional Association

10600 Quivira Road, Suite 210
Overland Park, KS 66215
913.541.3300
www.ppadocs.com

**Society for Adolescent Health and
Medicine**

111 Deer Lake Road, Suite 100
Deerfield, IL 60015
847.753.5226
www.adolescenthealth.org