

Caring for Children Worldwide:

Careers in Pediatric Infectious Diseases



ABOUT THE PEDIATRIC INFECTIOUS DISEASES SOCIETY

The mission of the Pediatric Infectious Diseases Society (PIDS) is to enhance the health of infants, children, and adolescents by promoting excellence in the diagnosis, management, and prevention of infectious diseases through clinical care, education, research, and advocacy.

Membership in PIDS is open to physicians, doctoral-level scientists, and others who have completed or are in the course of training in infectious diseases or its related disciplines, and who are identified with the field of pediatric infectious diseases or its related disciplines through clinical practice, research, teaching, administration, or any combination of these activities. Members receive a yearly subscription to the official PIDS publication, the Journal of the Pediatric Infectious Diseases Society, which features original studies, reviews, and case reports on all aspects of infectious diseases in children that have relevance to clinical practice. For residents and fellows in pediatric infectious diseases, PIDS membership dues are waived. For more information, visit the PIDS website and follow PIDS on Facebook (https://www.facebook.com/PIDSociety/), Twitter (https://twitter.com/PIDSociety/), and YouTube (https://www.youtube.com/channel/UCCYA6iqlXpfe94Q_L5eBZRA).



WHY CHOOSE A CAREER IN PEDIATRIC INFECTIOUS DISEASES?

If intellectual challenges, medical "detective work," and an array of rewarding career options sound appealing, the exciting field of pediatric infectious diseases may be for you. Pediatric ID specialists develop and employ strategies to diagnose, treat, and prevent infectious diseases in children, including those particularly susceptible to infections and their consequences. Children also represent the greatest opportunity to prevent infectious diseases through comprehensive immunization programs.

To hear pediatric ID physicians discuss their work, why they chose the field, and why they find it so rewarding, visit the PIDS YouTube Channel. <u>PIDS YouTube Channel</u> (https://www.youtube.com/channel/UCCYA6iqlXpfe94Q_L5eBZRA)



A CHALLENGING FIELD WITH A HUGE IMPACT

By championing the development and utilization of vaccines, pediatric ID specialists have led a successful charge against many serious childhood afflictions (see table). Since the mid-1900s, immunization has eradicated or dramatically reduced smallpox, poliomyelitis, and measles, among other diseases. Vaccines against these three infections alone save nearly 8 million lives annually, according to the National Institutes of Health (NIH).

But challenges remain. Of the approximately 52 million deaths worldwide each year, 17 million are caused by infectious diseases, including 9 million among children. The threat of re-emerging and new diseases — more than 30 new diseases have been identified in the past two decades alone — and the spread of antimicrobial resistance are constant reminders of the need for talented, committed physicians and scientists in the field. Even established pathogens develop new virulence mechanisms, and increased resistance to antimicrobial drugs continues to challenge today's pediatric ID specialist.

COMPARISON OF 20TH CENTURY ANNUAL MORBIDITY & CURRENT MORBIDITY

Disease	20 th Century Annual Morbidity	2013 Reported Cases	% Decrease
Smallpox	29,005	0	100 %
Diphtheria	21,053	0	100%
Pertussis	200,752	28,639	86 %
Tetanus	580	26	96 %
Polio (paraly	tic) 16,316	1 4450	>99 %
Measles	530,217	187	>99 %
Mumps	162,344	584	>99 %
Rubella	47,745	9	>99 %
Congenital Rul Syndrome		1	99 %
Haemophilus infl	uenzae 20,000 (est)	31	>99 %

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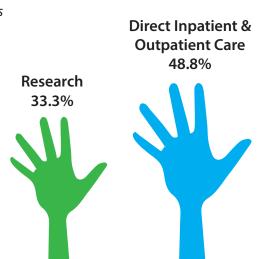
Although physicians have diagnosed and treated childhood infections for decades, the formal subspecialty of pediatric infectious diseases is relatively new. About 1,400 pediatric ID specialists have been certified since the American Board of Pediatrics (ABP) began offering the examination in 1994. Among all subspecialty pediatricians, about 6 percent choose the ID subspecialty, according to the ABP.

Compared with other pediatric subspecialists, whose work may be exclusively clinical, the average ID practitioner's time is in general evenly divided between clinical and non-clinical activities (see figure). In a recent American Academy of Pediatrics workforce survey, 80% of PID-trained respondents were working in clinical and/or academic PID. The most positive aspects of their work was reported as: intellectual stimulation, teaching opportunities, working in an academic setting, and patient care. Market demand for pediatric ID physicians

Figure: Average Proportion of Time Spent in Professional Tasks (2015 Pediatric Infectious Diseases Examination, Career Survey)

Source: American Board of Pediatrics 2015 Workforce Data (https://www.abp.org/sites/abp/files/pdf/workforcebook.pdf) appears to be fairly strong and the demand for pediatric ID specialists is likely to grow over the next decade as current specialists reach retirement, as new federal directives regarding infection control and antibiotic stewardship are enforced, and as global outbreaks of infectious diseases continue to occur. In response to new market trends, a number of PID specialists have received additional training in epidemiology/infection control and prevention, antimicrobial stewardship, HIV medicine, or care of the immunocompromised host.

To learn more about what pediatric ID specialists do and how the field compares to other pediatric subspecialties, visit the website of the <u>Council of Pediatric Subspecialties</u> (http://www.pedsubs.org/subdes/infectiousdiseases.cfm).



Medical Education
7.1%

Other 3.9%



Administration 7%



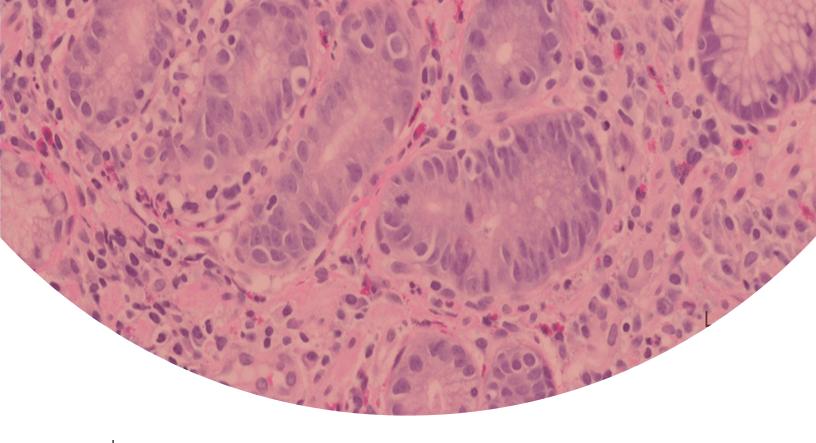


WHAT CAREER OPTIONS ARE AVAILABLE?

Pediatric ID specialists have a variety of career choices. Many in the field follow several paths during their careers, applying their unique combination of training and experience to new and diverse challenges. The career opportunities span multiple areas, including:

- **Research:** Both basic science and clinical trial research expand our knowledge and advance the field, ultimately enhancing the health of infants, children, and adolescents.
- **Private Practice:** Those in private clinical practice focus on patient care, diagnosing and treating a range of infectious diseases in both the outpatient and inpatient settings.
- **Hospital Epidemiology/Infection Control and Prevention:** Identifying, preventing, and controlling infections in healthcare settings are critical in improving the quality of patient care.
- Antimicrobial Stewardship: Coordinating strategies to improve the use of antimicrobial medications can enhance patient outcomes, reduce drug resistance, and lower unnecessary costs.
- Immunocompromised Host ID: Preventing and managing infectious diseases in transplant recipients is a major component of ensuring successful outcomes for these patients.
- Industry: Pharmaceutical companies continue to develop pediatric vaccines and anti-infective agents. Pediatric ID experts play an important role throughout the development and evaluation process.
- **Public Health:** This work includes tracking the epidemiology of infectious diseases, monitoring vaccine preventable diseases, and investigating unusual or emerging pathogens.
- **Education:** Many pediatric ID physicians work at medical schools, children's hospitals, or community-based teaching hospitals, training the next generation of healthcare providers.

Pediatric ID specialists also play key roles in **global health, healthcare administration, public policy,** and in **foundations and other organizations,** where they work to improve the health of children in the U.S. and around the world.



WHAT TRAINING IS REQUIRED?

Applications to pediatric ID fellowship training programs must first complete pediatric residency training. Pediatric ID fellowships last three years. At least 12 months are spent in clinical training, and the remainder is devoted to research or other scholarly activities.

To be eligible for American Board of Pediatrics (ABP) certification in pediatric ID, a candidate must:

Complete training in a program accredited by the Accreditation Council for Graduate Medical Education (ACGME) in the United States or the Royal College of Physicians and Surgeons of Canada (RSPSC).

Submit an acceptable work product.

Additionally, the ABP requires that candidates first achieve and maintain certification in general pediatrics and hold a current and valid unrestricted license to practice

medicine in a U.S. state, district, or territory (or province of Canada), or in the U.S. armed forces. Visit the <u>ABP website</u> (www.abp.org) for details on specific requirements, which are subject to change.

Detailed information about accredited pediatric ID training programs is available on the PIDS website at www.pids.org.

Most programs participate in the National Resident Matching Program (NRMP) Pediatric Specialties Fall Match (http://www.nrmp. org/fellowships/pediatrics-specialties-fallmatch/). To learn more about what it's like to be a pediatric ID fellow, and for tips about preparing for fellowship, see the PIDS Fellows Survival Guide at http://www.pids.org/education-and-training/resources-for-fellows/fellows-survival-guide.html.



1300 Wilson Boulevard, Suite 300 | Arlington, VA 22209 Phone | 703.299.6764 Email | pids@idsociety.org Website | www.pids.org





