

CHAPTER 1

EXPLORING A WORLD OF OPPORTUNITIES

People like you who choose dentistry as a career open up a world of opportunities that will lead to success and satisfaction for the rest of your lives. This is because:

- dentistry is a dynamic health profession;
- dentists are financially successful health professionals and highly respected members of their communities; and
- the demand for dental care will continue to be strong in the future, ensuring the stability and security of the profession.

The opportunities that exist for dentists now and in the future make oral health one of the most exciting, challenging, and rewarding professions. Individuals who choose to pursue dental careers are motivated, scientifically curious, intelligent, ambitious, and socially conscious health professionals. They are men and women from diverse backgrounds and cultures, all of whom want to do work that makes a difference.

This chapter provides an overview of the field of dentistry and its many facets. If you are exploring career alternatives and want to know more about dentistry, this information will be useful for you. And if you have already decided to become a dentist, this information will help you summarize the range of specialties and practice options.

The first section, **An Introduction to Dentistry**, briefly explains what dentistry is and what dentists do; **Opportunities in Dentistry** shows that there is a growing demand for dentists; **Rewards of Practicing Dentistry** describes the professional and personal satisfactions of being a dentist; and, finally, **Career Options** surveys the various fields and practice options in dentistry.

AN INTRODUCTION TO DENTISTRY

Dentistry is the branch of the healing arts and sciences devoted to maintaining the health of the teeth, gums, and other hard and soft tissues of the oral cavity and adjacent structures. A dentist is a scientist and clinician dedicated to the highest standards of health through prevention, diagnosis, and treatment of oral diseases and conditions.

The notion of dentists as those who merely “fill teeth” is completely out of date. Today, dentists are highly sophisticated health professionals who provide a wide range of care that contributes enormously to the quality of their patients’ day-to-day lives by preventing tooth decay, periodontal disease, malocclusion, and oral-facial anomalies. These and other oral disorders can cause significant pain, improper chewing or digestion, dry mouth, abnormal speech, and altered facial appearance. Dentists are also instrumental in early detection of oral cancer and systemic conditions of the body that manifest themselves in the mouth, and they are at the forefront of a range of new developments in cosmetic and aesthetic practices.

Furthermore, the dental profession includes not only those who provide direct patient care, but those who teach, conduct research, and work in public and international health.

With continuing population growth and the upcoming retirement of a large group of dentists educated during the 1960s and 70s, the need for new dentists is expected to escalate over the next decades.

All of these individuals are vital links in the health care delivery system, necessary to promote social and economic change as well as individual well-being. Dentists understand the importance of and have made contributions to serving both disadvantaged populations and populations with limited access to dental care. It is not surprising, then, that the dental profession is very involved in influencing current health care reform efforts to ensure that the importance of oral health is understood and that oral health care is available to everyone.

Faculty members in schools of dental medicine play an especially critical role because they influence an entire field of study and contribute to shaping the profession in the United States and around the world. Dental school faculty are responsible for bringing new discoveries into the classroom; they stimulate students' intellect and help determine the future of oral health care through dental medicine.

OPPORTUNITIES IN DENTISTRY

The American Dental Association (ADA) reports that as of 2003, there were more than 173,000 professionally active dentists in the United States. On average, that is one dentist for every 1,698 people. Current dental workforce projections indicate a decreasing number of dentists. With continuing population growth and the upcoming retirement of a large group of dentists educated during the 1960s and 70s, the need for new dentists will escalate over the next decades.

It is also important to note that dentists tend to be unevenly distributed across the nation. Rural and inner-city communities are often seriously underserved. Consequently, practicing dentist-to-population ratios are significantly different from state to state and range from one dentist for every 1,200 people to one for every 2,500 or more. These data clearly demonstrate the importance of maintaining an adequate supply of dentists in the years ahead, accompanied by more efficient practice methods, better use of allied personnel, and improved prevention programs that will enable future dentists to extend professional care to more patients.

Opportunities for all individuals interested in becoming dentists are growing because of the intense national need to improve access to general health and oral care and the continuously increasing demand for dental services. Although at this point women and minorities remain underrepresented in dentistry, the profession is strongly committed to increasing its diversity. Consequently, in response to the clear need for dentists to serve all citizens, dental schools are strengthening their efforts to recruit and retain all highly qualified students, including intensively recruiting women and underrepresented minorities.

REWARDS OF PRACTICING DENTISTRY

The rewards of being a dentist are many, starting with the personal satisfaction dentists obtain from their daily professional accomplishments. Highly regarded by the community for their contributions to the well-being of citizens, dentists are often called upon to provide community consultation and services.

In addition, dentists are well compensated. The average income for a dentist is in the upper five percent of family incomes in the United States. Though incomes vary across the country and depend on the type of practice, the ADA reports that in 2003 the average net income of solo, full-time, private general practitioners was \$198,100; it was \$287,190 for dental specialists. The net hourly income of dentists now exceeds that of family physicians, general internists, and pediatricians.

The public's need and respect for dentists continue to grow with the increasing popular recognition of the importance of health in general and oral health in particular. Approximately 56 percent of the U.S. population is now covered by dental insurance plans, making it easier for many to pay for dental care. Increases in preventive dental care, geriatric

dental care, and cosmetic treatments also have contributed to growth in the demand for dental care that is expected to continue.

CAREER OPTIONS

A career in dentistry has two key components: what the dentist does and how he or she does it. The “what” refers to the specific field of dentistry in which he or she practices; the “how” refers to the type of practice itself. These components offer many options for fulfilling one’s professional and personal goals. If you choose to become a dentist, making decisions about these components will allow you to develop a career that suits your professional interests and fits your choice of lifestyle. The following overviews of clinical fields and professional and research opportunities should help you decide.

■ Clinical Fields

There are many clinical fields in dentistry. While most dentists in private practice (80 percent) are general practitioners, others choose to specialize in one particular field. Following is a brief description of the procedures dentists perform in each field, whether education beyond dental school (that is, postdoctoral or specialty education) is required, the length of programs, and the current number of postdoctoral programs and first-year students in those programs nationwide.

1. General Dentistry

General dentists use their oral diagnostic, preventive, surgical, and rehabilitative skills to restore damaged or missing tooth structure and treat diseases of the bone and soft tissue in the mouth and adjacent structures. They also provide patients with programs of preventive oral health care. Currently, there are 56 dental schools in the United States, including one in Puerto Rico. These schools enroll approximately 5,081 students in their first-year classes. Postdoctoral education is not required to practice as a general dentist. However, general practice residencies (GPR) and advanced education in general dentistry (AEGD) are available and can expand the general dentist’s career options and scope of practice. The length of these general dentistry postdoctoral programs varies, but most are 12 months long. In the United States, there are 200 GPR programs with 894 first-year students and 94 AEGD programs with 558 first-year students.

2. Dental Public Health

Individuals who enter the dental public health field are involved in developing policies and programs, such as health care reform, that affect the community at large. Advanced dental education is required. The types of programs available vary widely from certificate programs to master’s (M.P.H.) and doctoral (D.P.H.) programs. The length of programs varies, but most are between 12 and 24 months long. There are 14 programs and 21 first-year students in the United States.

3. Endodontics

Endodontists diagnose and treat diseases and injuries that are specific to the dental nerves and pulp (the matter inside the tooth) and tissues that affect the vitality of the teeth. Advanced dental education is required. Some programs offer certificates; others are degree programs at the master’s (M.S.D.) level. Students interested in academic dentistry generally prefer degree

Why consider a dental career?

Not only are dentists part of a dynamic, stimulating field that offers a variety of professional opportunities, but

- dentistry is not generally subject to the effects of managed care and reductions in federal funding that have affected other health care professions;
- net average incomes for dentists in private practice have increased by over 96 percent since 1990; the net hourly income of dentists now exceeds that of family physicians, general internists, and pediatricians;
- dentists are generally able to enter practice directly upon completion of the four years of dental school;
- the lifestyle of a private practice dentist is typically predictable and self-determined;
- dentists enjoy unusual loyalty among their patients;
- the entire dental profession is at the forefront of important new research substantiating the relationship between oral health and systemic health; and
- while most graduates of dental schools eventually choose to set up private practices, the profession offers a wide range of clinical, research, and academic opportunities to both new graduates and dentists at later stages of their careers.

programs. The length of programs varies, but most are 24 to 36 months long. There are 52 programs and 202 first-year students in the United States.

4. Oral and Maxillofacial Pathology

Oral pathologists are dental scientists who study and research the causes, processes, and effects of diseases with oral manifestations. These diseases may be confined to the mouth and oral cavity, or they may affect other parts of the body. Most oral pathologists do not treat patients directly. However, they provide critical diagnostic and consultative biopsy services to dentists and physicians in the treatment of their patients. Advanced dental education is required. Some programs offer certificates; others are degree programs at the master's (M.S.D.) or doctoral (Ph.D.) level. Students interested in academic dentistry generally prefer degree programs. The length of programs varies, but most are 36 months long. There are 14 programs and 14 first-year students in the United States.

5. Oral and Maxillofacial Radiology

Oral radiologists have advanced education and experience in radiation physics, biology, safety, and hygiene related to the taking and interpretation of conventional, digital, CT, MRI, and allied imaging modalities of oral-facial structures and disease. Programs are of 24 to 36 months in length, depending on the certificate or degree offered. This recently designated specialty currently has five programs with 10 first-year students in the United States.

6. Oral and Maxillofacial Surgery

This specialty requires practitioners to provide a broad range of diagnostic services and treatments for diseases, injuries, and defects of the neck, head, jaw, and associated structures. Advanced dental education is required. Programs vary in length from four to

STUDENT PROFILE



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Why dentistry?

Dentistry was a conscious choice for me, although it's not often presented as a career choice when you excel in math and sciences. I was a biochemistry major at the University of Nevada, Reno, and I sort of felt like I was shunted toward medicine. For a couple years after graduation, I did research at the medical school there, and then my wife and I moved to Las Vegas and I managed a chemistry stockroom for the state of Nevada. I saw what the lifestyle of my friends who were medical students was like, and I decided it was time to look at other health care fields.

I shadowed my family dentist, and I realized dentistry was the greatest profession. I even pulled the application that I had submitted to medical school before I started the dental school application process. It was great for my

family that the dental school had just opened in Las Vegas and I was able to stay in state. I graduated in May 2006.

What are you doing now?

When I was starting dental school, I thought for sure I would go into private practice. But I'd always had some interest in education, and during my fourth year, there was a vertical mentorship program where I worked with second- and third-years in clinic, explaining things to them. I really enjoyed that, so I decided to look into the option of going into dental education. I picked the brains of a lot of the faculty, and I realized that teaching and faculty practice would be the best of both worlds. Now I'm an Assistant Professor of Clinical Sciences at UNLV, and I work with the dentists of the future.

On Mondays, I work in our outreach clinic with Medicaid patients, which is great since I'm still developing some of my own skills. My job is the perfect mix.

Where do you see yourself in five years?

I think about that all the time. I'll be pursuing further education, but I don't know whether it will be in a dental specialty or another field. I'd like to eventually go into dental education administration, and there are some degrees that would prepare me for that, maybe a master's in public administration, a master's in education, or a master's in business administration. If it is specialty training that I pursue, oral and maxillofacial surgery is the one area that I have always found the most challenging and fascinating, and it would certainly be what I choose.

Advice to applicants and first-year students

If you're thinking about going into dentistry ... do it! It's a wonderful field with a lot of options in research and education that you can look into. You don't have to be in private practice, doing crowns and bridges all day, and you can still have lots of patient interaction.

That's something I love. When I'm supervising six or seven students in clinic, I interact with all of their patients. It takes a lot of trust for a patient to allow you to provide oral health care, and you develop very special relationships. I hope anyone considering dentistry is drawn to this part of the profession.

What do you do for balance in your life?

I spend a lot of time with my family. My children are so young that I don't want to miss anything. We had our first child during dental school. UNLV has many married students, and there were about 30 children among my classmates when we started and about 60 by the time we finished. We had some adult oriented events, and some family oriented ones, like picnics on Saturday, and of course the weather in Las Vegas is always great for things like that.

That's a good example of how, if you're organized and efficient, you can still have quite a bit of time during dental school for a normal life. The training is rigorous, but the material is not that difficult. After all, people graduate from dental school every year! It's the volume and managing it all that can be tough. Just focus in on how you learn best and enjoy the experience – the four years go by quickly.

What is the last book you read?

I haven't read for pleasure much since my second son was born, which was only a few months ago! But at a conference I read *Fingerprints of the Gods* by Graham Hancock, which is an alternative history that looks at whether Earth's civilizations are older than we think.

Are you married/partnered/single? Any children?

I'm married, and my wife is from the Las Vegas area originally. We have two sons, three years and four months.

six years; some programs offer certificates and others include the awarding of an M.D. degree within the residency program. There are 102 programs and 214 first-year students in the United States.

7. Orthodontics and Dentofacial Orthopedics

Orthodontists treat problems related to irregular dental development, missing teeth, and other abnormalities. Beyond “straightening teeth,” orthodontists establish normal functioning and appearance for their patients. Advanced dental education is required. Some programs offer certificates; others are degree programs at the master’s (M.S.D.) level. Students interested in academic dentistry generally prefer degree programs. The length of programs varies, but most are 24 to 36 months long. There are 58 programs and 322 first-year students in the United States.

8. Pediatric Dentistry

Pediatric dentists specialize in treating children from birth to adolescence. They also treat disabled patients beyond the age of adolescence. Postdoctoral education is required. Some programs offer certificates; others are degree programs at the master’s (M.S.D.) or doctoral (Ph.D.) level. Students interested in academic dentistry generally prefer degree programs. The length of programs varies, but most are 24 to 36 months long. There are 65 programs and 272 first-year students in the United States.

9. Periodontics

Periodontists diagnose and treat diseases of the gingival tissue and bone supporting the teeth. Gingival tissue includes the gum, the oral mucous membranes, and other tissue that surrounds and supports the teeth. Advanced dental education is required. Some programs offer certificates; others are degree programs at the master’s (M.S.D.) or doctoral (Ph.D.) level. Students interested in academic dentistry generally prefer degree programs. The length of programs varies, but most are 36 months long. There are 52 programs and 157 first-year students in the United States.

10. Prosthodontics

Prosthodontists replace missing natural teeth with fixed or removable appliances, such as dentures, bridges, and implants. Advanced dental education is required. Some programs offer certificates; others are degree programs at the master’s (M.S.D.) level. Students interested in academic dentistry generally prefer degree programs. The length of programs varies, with training lasting between 12 and 36 months. There are 61 programs and 155 first-year students in the United States.

As a potential dental student, you are not ready at this time to apply for a position in an advanced dental education program. However, you should know that ADEA’s Postdoctoral Application Support Service (PASS) simplifies the process of applying to many postdoctoral programs, such as general practice residencies, oral and maxillofacial surgery, and pediatric dentistry. You will learn more about PASS once you are in dental school and begin to consider dental career options that require additional education and training.

Practice Options and Other Professional Opportunities

Dentistry offers an array of professional opportunities from which individuals can choose to best suit their interests and lifestyle goals. These opportunities include the following:

Self-Employed in Private Practice

Traditionally, most dentists engage in private practice either by themselves in solo practice or in partnership with other dentists. Ninety percent of private practice dentists own their own practices, either individually or in partnership with other dentists. Although many recent dental school graduates begin their careers in salaried/associate positions in private practice, most choose to move to practice ownership within several years. Most practitioners provide care on a fee for service basis, and/or participate in preferred provider plans. Fewer than 15% of dentists participate in dental health maintenance organizations.

Practice as a Salaried Employee or Associate

Dentists who are not self-employed may work as salaried employees/associates for dentists who are in private practice. Other salaried situations include working for a corporation that provides dental care. Additional salaried opportunities are in managed health care organizations, such as health maintenance organizations (HMOs).

Academic Dentistry and Dental Education

Once you are in dental school you will see firsthand some of the opportunities that are open to dentists who choose a career in dental education and academic dentistry. Becoming a faculty member allows a dental professional the chance to pass knowledge on to students and mold the future of the profession. Teaching, administration, research, clinical practice, and community service—and being a part of a stimulating university environment—are important to dental educators. Many dental school faculty members combine their love for teaching and research with private practice. ADEA has excellent information on careers in academic dentistry at <https://www2.adea.org/adcn>.

Dental Research

Dentists trained as researchers are scientists who contribute significantly to improving health care nationally and internationally. Many researchers are faculty members at universities; others work in federal facilities such as the National Institute of Dental and Craniofacial Research (NIDCR) and National Institutes of Health (NIH) or in private industry. In addition, some dental students and practicing dentists, at various points in their careers, may decide that they would benefit from participation in a research experience. For those individuals, postdoctoral fellowships and research opportunities are available in a variety of areas and are sponsored by public and private organizations. Support is given to individuals who are still dental students as well as those who have graduated from dental school. For more information, contact the American Association for Dental Research (AADR), 1619 Duke St., Alexandria, VA 22314-3406; 703-548-0066; www.dentalresearch.org.

Service in the Federal Government

Dentists in the federal government may serve in varied capacities. Research has been described briefly above. In addition, the military enlists dentists to serve the oral health needs of military personnel and their families. The U.S. Public Health Service hires dentists to serve disadvantaged populations that do not have adequate access to proper dental care, and the Indian Health Service hires dentists to provide oral healthcare for American Indians and Alaskan Natives.

Public Health Care Policy

Dentists who become experts in public policy may work at universities, or they may be employed in government agencies such as the U.S. Department of Health and Human Services or in a state's department of health. Other dentists who are experts in public policy work with associations, such as the ADA or ADEA, or are employed by state and national elected officials to help them develop laws dealing with health care issues.

International Health Care

Dentists engaged in international health care provide services to developing populations abroad. They may work for agencies such as the World Health Organization (WHO).

Final Thoughts

You should note that some of these options overlap. Dentists who work in private practice, for instance, are often self-employed, but some are salaried employees in group practices. Dental researchers, on the other hand, often work in university settings, but may be employed by the federal government or private industry.

This list of practice options is not exhaustive because the horizons of dentistry are expanding every year, especially at this dynamic time in health care. New areas in dental service are being created with opportunities for dental health care providers in practice, industry, government, dental societies, national scientific organizations, and educational institutions.

For additional sources of information on all of these opportunities, see chapter 5 of this guide.