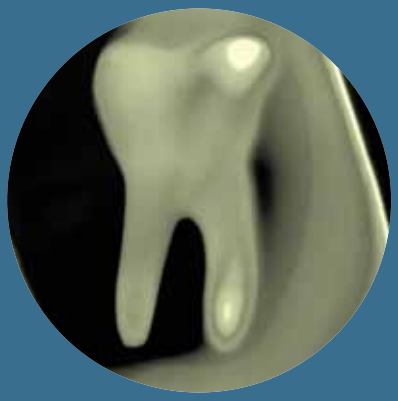
The Future *of* Oral Health

Trends & Issues



The American Dental Hygienists' Association (ADHA) believes that oral health is an integral part of total health, and stresses that signs and symptoms of many potentially life-threatening diseases appear in the mouth first, when they are most treatable.

In addition, numerous studies have identified periodontal (gum) disease as a risk factor for a number of life-altering disease, such as heart disease, diabetes, respiratory disease, and premature births and low-birthweight babies.[1] By taking medical and oral health histories, monitoring blood pressure, conducting head and neck exams, and focusing on extensive oral exams, dental hygienists are gaining a reputation as experts in preventive intervention. They are alerting their patients to the possibilities that they may have life-altering systemic illnesses, and they are often doing so early enough to save lives.

Dental hygienists consider it part of their job to detect symptoms related to systemic illness. Although dental hygienists don't make a medical diagnosis, they explain what they find, and if a serious disease is detected or suspected, advise patients to obtain a conclusive diagnosis from a physician. Oral health is integral to total health and dental hygienists' primary role is to improve or maintain patients' health status and recommend a home-care regimen that works to minimize related problems and promote overall health.

Americans spend billions of dollars for oral health services each year, but the cost of treatment is only part of the story. The burden of dental-related diseases is significant. Millions of work and school days are lost to dental problems each year. This despite the fact that oral health preventive services are some of the least costly health services available.[2]

Dental hygienists are prevention specialists who understand that recognizing the connection between oral health and total health can prevent disease. They treat problems while they are still manageable and save critical health care dollars so there are enough resources to treat everyone.

Prevention Pays

Dental hygiene services are centered on the promotion of wellness. In addition to examining patients for the signs and symptoms of serious diseases, dental hygienists provide direct patient treatment and educate patients to follow preventive measures at home. Their services include procedures to prevent periodontal infection and tooth decay.

The focus of dental hygiene services is the oral prophylaxis, or the removal of deposits from all tooth surfaces. It is important to note that supragingival (above-the-gum line) scaling and coronal polishing *do not* constitute an oral prophylaxis. Since periodontal disease begins below the gum line, scaling must also be done below the gum line. It is inappropriate and misleading for a dental hygienist or dentist to provide a simple polishing and represent it as a thorough oral prophylaxis. Indeed, when performed by untrained personnel, polishing procedures can cause harmful changes in the teeth, remove the outer layer of enamel containing protective fluoride, and damage the tooth structure underneath.

Topical fluoride reverses early tooth decay by helping tooth enamel rebuild itself.

Among other dental hygiene services are application of pit-and-fissure sealants and the application of topical fluorides, both of which protect the surfaces of the teeth from decay.

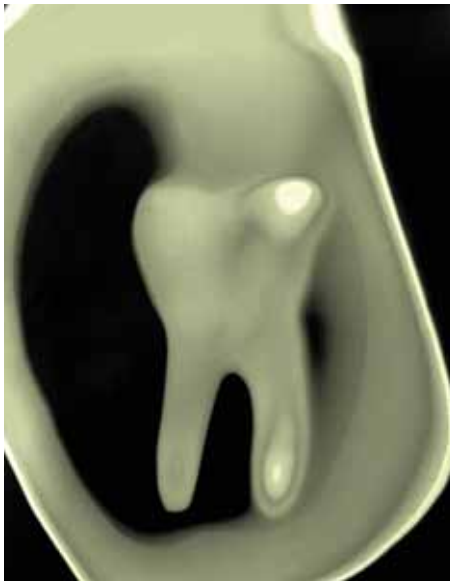
Sealants

A service provided by dental hygienists is the application of dental sealants, which are thin plastic coatings that seal crevices in permanent teeth and act as a physical barrier to prevent oral bacteria from collecting and creating the acid environment that allows tooth decay to develop. There is no pain involved in applying sealants, and the cost of preventing tooth decay by placing dental sealants is much less than treating oral disease once it has developed.

Fluorides

According to the U.S. Centers for Disease Control and Prevention (CDC), the dramatic reduction of tooth decay rates in U.S. is credited to the fluoridation of municipal drinking water. It has been listed as one of the 10 great public health achievements of the 20th century. Since the 1940s, this strategy has proven to be a safe, effective, and inexpensive way of reducing the general public's risk of tooth decay.[3–5] However, fluoridation reaches only 62% of the U.S. population through public water supplies. CDC recommends that there be continued and enhanced efforts to expand fluoridation of community drinking water.

For the high-risk communities where water supplies are not fluoridated, topical fluorides are very important. Topical fluoride reverses early tooth decay by helping tooth enamel rebuild itself. High concentration topical fluoride products, such as gels, foams, and varnishes that are professionally applied by dental hygienists may best benefit those people at high risk for decay.



CDC also has recommended that parents monitor the fluoride intake of children younger than 6-years-old.[4] The overuse of fluoride during

the first six years of life can result in enamel fluorosis, a chalk-like discoloration that may appear as white lines or spots on teeth. Unsupervised children

who ingest toothpaste account for the most common occurrences of fluoride over intake in children.[4]

While research to develop a vaccine against dental caries (cavities) continues, it is important to guard against tooth decay—an infectious transmissible disease—with the combined use of dental sealants and fluoride. These services protect children against tooth decay just as vaccines immunize against certain medical diseases.

ADHA urges that any children's health initiative improve access to preventive oral health care services by including dental sealants and fluoride in any definition of childhood immunizations.

Barriers to Care

Regular oral health care is necessary to detect and treat problems like tooth decay and periodontal disease promptly. Yet, currently, only 50 percent of all Americans receive regular oral health care, according to the Institute of Medicine. Many segments of the U.S. population, such as the poor, elderly, disabled, and those who live in rural areas and some urban areas do not have access to regular oral health care.

Restrictive supervision laws for dental hygienists are the number one barrier to access to oral health care. For example, a number of states still require that dental hygienists work under *direct supervision*. This means that a dentist must authorize the service or procedure to be performed by a dental hygienist and be physically present while it is being performed or approve the work before dismissing the patient.

A less restrictive form of supervision—called *general supervision*—is in place in 37 states. This means a dentist has authorized a dental hygienist to perform the procedures but doesn't need to be present in the treatment facility while the care is being delivered. In these states, dental hygienists can practice under general supervision in any practice setting. In an additional 11 states, general supervision is not permitted in dental offices, but is allowed in various other settings.

General supervision is preferable to direct because it allows the dental hygienist to perform preventive services to those currently receiving little or no care. And it opens up practice opportunities for dental hygienists in other settings like hospitals, schools, nursing homes, prisons, and public health settings.

Oral Health Care *Facts*

Restrictive supervision laws for dental hygienists greatly impede access to oral health care. As the U.S. Department of Health and Human Services has reported, "Dental Hygiene services are largely confined to private dental offices because of supervision requirements which differ from state to state and hinder dental hygienists' ability to disperse throughout the community and thereby improve access to oral health care."

Americans spend upwards of $2 billion a year on dental products—toothpaste, mouthwash, and dental floss.

Dental hygienists who graduate from an accredited dental hygiene program receive an average of 2,000 hours of classroom study in academic subjects emphasizing basic sciences, dental sciences, dental hygiene theory (including pain control, nutrition, oral health education, and preventive counseling), and periodontics (the study of gums and their supporting structures). These hours include at least 600 hours of supervised instruction in preclinical and clinical skills.

The "RDH" designation stands for Registered Dental Hygienist. It assures that a dental hygienist has completed a nationally accredited dental hygiene program, has successfully passed a national written and state clinical examination, and has received a state license to provide preventive oral health care services and patient education. (In Indiana, the designation is LDH—Licensed Dental Hygienist—is used instead of RDH.)

General supervision also may encourage oral health facilities to stay open later and on weekends so they can treat working people who may skip dental care rather than lose time from their jobs. And it also allows continuity of service when a dentist is ill, hospitalized, or on vacation.

Another form of practice that allows dental hygienists to treat people who really need care is *unsupervised practice*. This allows a dental hygienist to plan and initiate dental hygiene treatment without the specific permission of a dentist, either in a separate hygiene practice or another type of setting like a nursing home, school clinic, corporate setting, or a satellite dental hygiene office owned by a dentist.

Currently only one state—Colorado—allows dental hygienists to practice without dental supervision in all settings. Some other states, including Washington, California, Colorado, Connecticut, Maine, Minnesota, New Hampshire, New Mexico, Nevada, Oregon, and Texas, allow dental hygienists to practice unsupervised in settings such as schools, nursing homes, community health centers, and hospitals.

Dental boards regulate both their own profession and dental hygiene even though dental hygienists are the experts on dental hygiene services.

This is the case because dental hygienists, unlike most health care professionals, are not allowed to regulate their own profession. In fact, dental hygiene is virtually the only licensed health care profession that does not regulate itself.

Self-Regulation

Professional regulation is intended to protect the health and safety of the public by licensing health professionals and overseeing the way they practice. The basic guidelines for the regulation of each profession are found in a state law called a practice act. *Self-regulation* means that state government turns to members of the regulated profession for advice and assistance in carrying out the practice act.

For example, dental boards, composed overwhelmingly of dentists, regulate both their own profession and dental hygiene. This even though dental hygienists are the experts on dental hygiene services; and should, therefore, have more input on dental hygiene issues.

Currently, in most states, dental hygienists hold only one or two seats on the board and often may vote only on certain matters. In fact, across the U.S. there are more public members on dental boards than there are dental hygienists.

There are exceptions. In Washington State, dental hygienists are regulated by the director of the state health department in consultation with a committee of three dental hygienists and a consumer. In Connecticut, dental hygienists also are regulated directly by the health department. And in New Mexico, dental hygienists are regulated by a committee of five dental hygienists, one dentist, and one consumer. This committee is attached to the board of dental health care which must enforce committee rules and findings.

Other states like Arizona, California, Delaware, Florida, Iowa, Maryland, Missouri, New Mexico, Oregon, Texas, and Washington have special committees that work with dental boards, with powers ranging from advisory or administrative to oversight of rules.

If more states allowed dental hygienists to regulate themselves, access could be improved while public safety would be protected. Dental hygienists are the experts on dental hygiene education and practice, while dentists are oral health generalists, with additional concentrated training in restorative skills. Dental hygienists spend at least two years dedicated almost exclusively to learning dental hygiene theory and practice. They are the experts in preventive oral health.

Currently dental hygiene concerns are typically ignored by dental boards whose priority is dental practice issues. A dental hygiene board could spend all of its time concentrating on dental hygiene issues and regulation.

In addition, a dental hygiene board would eliminate the conflict of interest that exists today when employer dentists regulate their own employees and often make decisions based on the economics of the private dental office rather than access to care and competence assurance. And a dental hygiene board would be cost effective. Licensees' fees would pay for the cost of regulation.

Manpower Issues: Shortages and On-the-Job Training

Preceptorship is a term used to describe a form of on-the-job training—teaching dental assistants to perform dental hygiene duties without the benefit of formal education or clinical instruction. ADHA is concerned that preceptorship or other forms of nonaccredited alternative training programs might cause public harm, and believes that only a licensed dental hygienist who has graduated from an accredited dental hygiene education program, or a licensed dentist, is qualified to deliver preventive dental hygiene services such as the oral prophylaxis. Allowing unlicensed personnel, like dental assistants, to perform dental hygiene services indiscriminately without first assessing the status of oral health, determining the need for specific services, and formulating a dental hygiene treatment plan is poor oral health care.

Dental groups that are in favor of shifting dental hygiene duties to dental assistants usually say they are doing it because they believe there is a national shortage of licensed dental hygienists. However, there is no valid evidence to substantiate this claim. In fact, the number of dental hygiene program graduates has exceeded the number of dental school graduates for the past six years.

According to ADHA's database, there are more than 120,000 licensed dental hygienists. And U.S. government figures indicate there are a little under 131,000 dentists. However, since 1990, the number of dentists per 100,000 U.S. population has been declining. This decline is predicted to continue so that by the year 2020, the number of dentists per 100,000 U.S. population will fall to 52.7. By comparison, since 1990, the number of dental hygiene programs has increased by 27 percent. In addition, from 1985-86 to 1995-96, the number of dental hygiene graduates has

Dental Hygiene Statistics

- There are more than 120,000 dental hygienists registered in the United States.
- 97.8% of the nation's dental hygienists are female.
- 37% of dental hygienists are between the ages of 35 and 54.
- There are more than 265 nationally accredited dental hygiene educational programs in the United States.
- The RDH designation assures patients that the dental hygienist is a licensed oral health care provider.
- Between 2000 and 2010, the number of new jobs for dental hygienists is projected at 54,000—a 37% growth rate.

increased by 20 percent, while the number of dentist graduates has declined by 23 percent.

The U.S. Health Resources and Services Administration's Bureau of Health Professions National Center for Health Workforce Information and Analysis has studied dental and dental hygiene workforce issues. Two of the regional centers for health workforce studies have cited and made policy recommendations to consider expanding the role of dental hygienists to include the delivery of oral health care services in shortage areas and to children on Medicaid.[6]

It is clear that the numbers of dental hygiene programs and graduates are increasing and that licensed dental hygienists are well educated to provide preventive and therapeutic services to the public. ADHA believes that dental hygienists who are graduates of accredited dental hygiene programs are competent to provide services without supervision.

To increase the number of dental hygienists practicing in underserved areas of the country, ADHA believes dental hygiene students should be qualified to participate in the National Health Service Corps Scholarship, Loan Forgiveness, and other programs covered under Title VII and VIII of the Public Health Service. These programs assist students with the increasing costs of their professional education while promoting access to care in underserved areas.

Millions of Americans in both rural and inner city areas are unable to obtain care because there are not enough dentists practicing in those areas.

Oral health faces the same challenges in rural areas as other kinds of health care services. The problem is a limited number of practitioners trying to serve a widely dispersed population.

Laws that require dental hygienists to practice in the immediate presence of a dentist make the situation worse. Since dental hygienists are restricted from practicing on their own, they are forced to go where the jobs are, instead of where patients need them.

Access to Care

There are a number of factors that inhibit access to care. The most obvious is the lack of ability to pay for care. However, millions of Americans in both rural and inner city areas are unable to obtain care because there are not enough dentists practicing in those areas. The federal government estimates that more than 31 million people live in areas designated as dental shortage areas where there is less than one full-time equivalent dentist for a population of 4,000 to 5,000 people. In addition, many people live in areas with an adequate supply of dentists and have the ability to pay, but do not get services because they are homebound or institutionalized and cannot go to the facilities where dental services are provided.

The Systemic Disease **Connection**

Periodontal (gum) disease has been identified as a risk factor in a number of serious or life-threatening diseases and conditions.

***Oral Cancer*—**This year in the U.S., more than 30,000 cases of oral cancer will be diagnosed, and more than 8,000 people will die of the disease. Oral cancer is more common than leukemia, skin melanoma, Hodgkin's disease, and cancers of the brain, liver, bone, thyroid gland, stomach, ovaries, and cervix. It is typically caused by long-term use of tobacco products and alcohol.[7] If caught early, it can be treated successfully more than 90 percent of the time however, if not detected early, it can spread into other parts of the body and become difficult, if not impossible to treat. One of the most important parts of a regular dental hygiene exam is a thorough oral cancer screening.

***Heart Disease*—**Cardiovascular disease affects 57 million people in the U.S. and kills almost a million people each year. Recent studies have shown that a patient with periodontal (gum) disease is twice as likely to develop heart disease as one without the disease.[1] *P. gingivalis*, a primary bacteria in periodontal disease, can enter the bloodstream and spread throughout the body, inflaming coronary arteries and causing changes in blood pressure, heart rate, heart function, and promoting blood clots, which can lead to heart attacks and strokes.

***Diabetes*—**Periodontal disease is one of the major complications of diabetes.[1] In fact, approximately 95 percent of Americans who suffer from diabetes also have periodontal disease and research shows that people with periodontal disease have more difficulty controlling their blood sugar level. Severe periodontal disease also can increase the risk of developing diabetes.

***Respiratory Ailments*—**Respiratory diseases like pneumonia, bronchitis, and emphysema affect millions of Americans annually. Bacteria associated with periodontal disease can travel from the mouth to the lungs and lower respiratory system, where it can lead to or aggravate respiratory diseases, especially in patients who already suffer from other diseases or conditions.[8]

***Premature, Low-birthweight Babies*—**Studies have found that expectant mothers with periodontal disease are up to seven times more likely to deliver premature, low-birthweight babies than women who don't have the disease.[1] Bacterial infections accelerate the production of labor-inducing fluids and can result in preterm babies.

***Osteoporosis*—**Dental hygienists also can see the oral signs of osteoporosis, a condition that affects 10 million Americans and accounts for 1.5 million fractures per year.[9] A dental hygienist is in a position to notice these risk factors and symptoms while taking a medical history and conducting a thorough exam. Dental X rays also can indicate the presence of osteoporosis.

***Eating Disorders*—**Eating disorders, such as such anorexia nervosa and bulimia, are far more common in women than men. In both disorders—but especially bulimia, a condition in which compulsive eating is followed by self-induced vomiting—there are oral signs of the disease.[10]

***HIV*—**HIV is another disease which often manifests itself in the mouth first. Some of the earliest signs are a specific odor, sores, and changes in the way the inside of the mouth looks.

Initiatives to expand funding programs that help people pay for dental services, including the means to reimburse dental hygienists' services, are necessary to address the financial barriers to oral health care. However, it is just as important to remove unnecessary restrictions on dental hygiene practice and to take measures to encourage dental hygienists to practice in underserved areas in settings where patients' ability to reach dental facilities is the problem.

In addition to financial barriers, there are bureaucratic and legal barriers that prevent dental

hygienists from providing access to care. There are numerous sources that document these barriers. For example, the inability to pay for care may result from having no dental insurance or from being ineligible for Medicaid due to income level. Low rate of payment has been cited as the primary reason dentists did not treat more Medicaid patients.

There are also ways that state laws and regulations restrict access to care—one is by limiting the type of practice settings, and the other is by imposing restrictive supervision requirements.

Licensed dental hygienists, by virtue of their comprehensive education and clinical preparation, are well prepared to deliver oral health care services to the public, safely and effectively, independent of dental supervision. In addition, dental hygienists are competent to provide services in a variety of settings more accessible to patients—residences of the homebound, public health and school-based programs, community clinics, and more.

Conclusion

ADHA is working to capitalize on the evolving health care arena to ensure that dental hygienists assume their appropriate role in the U.S. health care delivery system. In this way, access to oral health care can be available for anyone who seeks it.

Preventive oral health care is necessary to keep people healthy. Dental hygienists are the professionals best suited to guarantee prevention because they are licensed and educated to provide safe, effective quality care to all Americans.

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