

EXPANDING ORAL CARE OPPORTUNITIES: DIRECT ACCESS CARE PROVIDED BY DENTAL HYGIENISTS IN THE UNITED STATES

Doreen K. Naughton, RDH, BSDH^{a,b}

SORT SCORE			
A	B	C	NA

SORT, Strength of Recommendation Taxonomy

LEVEL OF EVIDENCE		
1	2	3

See page A8 for complete details regarding SORT and LEVEL OF EVIDENCE grading system

ABSTRACT

Dental hygienists expand access to oral care in the United States.

Background

Many Americans have access to oral health care in traditional dental offices however millions of Americans have unmet dental needs. For decades dental hygienists have provided opportunities for un-served and under-served Americans to receive preventive services in a variety of alternate delivery sites, and referral to licensed dentists for dental care needs.

Methods

Publications, state practice acts, state public health departments, the American Dental Hygienists' Association, and personal interviews of dental hygiene practitioners were accessed for information and statistical data.

Results

Dental hygienists in 36 states can legally provide direct access care. Dental hygienists are providing preventive services in a variety of settings to previously un-served and under-served Americans, with referral to dentists for dental needs.

Conclusion

Dental hygienists have provided direct access to care in the United States for decades. The exact number of direct access providers in the United States is unknown. Limited research and anecdotal information demonstrate that direct access care has facilitated alternate entry points into the oral health systems for thousands of previously un-served and underserved Americans. Older adults, persons with special needs, children in schools, pregnant women, minority populations, rural populations, and others have benefited from the availability of many services provided by direct access dental hygienists. Legislatures and private groups are becoming increasingly aware of the impact that direct access has made on the delivery of oral health care. Many factors continue to drive the growth of direct access care. Additional research is needed to accumulate qualitative and quantitative outcome data related to direct access care provided by dental hygienists and other mid level providers of oral health services.

Key words: Dental Hygiene Direct Access, Business of Dental Hygiene, Dental Hygiene Independent Practice, Dental Hygiene Practice Acts, Dental Hygiene Collaborative Practice, ADHA

INTRODUCTION

Dental hygienists have contributed to the oral health of Americans by providing care along with dentists in private offices for one hundred years. This allowed "many people (to) have access to the best oral health care in the world, yet millions

^aOral Health Sciences, School of Dentistry, University of Washington, USA.

^bDental Hygiene Health Services, Seahurst, WA 98062, USA

Corresponding author: 16526 21 Ave SW, Burien, WA 98166. Tel./fax: +1 206 241 2023. E-mail: rdhdoreen@aol.com

J Evid Base Dent Pract 2014;14S: [171-182]

1532-3382/\$36.00

© 2014 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.jebdp.2014.04.003>

are unable to get even the basic dental care they need."¹ Dental hygienists recognized this disparity and in some states have provided preventive services directly to the public for decades. This article will discuss the history and current status of direct access care including its current definition; regulation, education, and practice experience, and supervision requirements; settings and scope of practice; business structures and payment mechanisms, future considerations, outcome measures, and feature several varied, successful practice models.

DEFINING 'DIRECT ACCESS'

The term direct access, as defined by the American Dental Hygienists' Association (ADHA) in 2004, "allows a dental hygienist the right to initiate treatment based on his or her assessment of a patient's needs without the specific authorization of a dentist, treat the patient without the presence of a dentist, and maintain a provider-patient relationship."²

Dental hygienists in some states provided dental hygiene services directly to the public years before ADHA adopted the term and definition of direct access. No single term or definition defined these practice arrangements. Commonly they were referred to as independent practices, independent contractors or unsupervised practices. Independent practice and independent contractor are terms that refer to business arrangements or ownership of practice. Unsupervised practice referred to the provision of services without the presence or prior authorization of a dentist. Other professional titles, endorsements, supervision requirements, terms of agreements were created and defined in individual state practice acts and had variable meanings. These terms and models were defined and developed based on other mid level practice models such as the collaborative advanced practice nursing model.

EARLY HISTORY OF DIRECT ACCESS CARE

The concept of providing preventive care to the public has had a long history in the United States. Dental nurses provided teeth cleaning in the U.S. as early as the late 1800s. One of these women, Dymple B. Johnson reported performing dental nurse functions in 1893.³

Dr. Alfred Fones trained his assistant Irene Newman to scale and polish teeth for his patients in 1906.³ In addition to working in private dental offices with patients who could afford its services, "Dr. Fones thought it equally important that dental hygienists provide outreach services to those who could not afford private dental care..."⁴ Newly trained dental hygienists provided education and prophylactic services for children in schools. Children with restorative needs were identified and referred to dental practices.⁴ A hospital in New Haven, Connecticut, employed a dental hygienist in 1915.³ Soon dentists began to employ dental

hygienists to provide preventive services in private dental offices. Consequently, most dental hygienists practiced in dental offices for the next decades. A dedicated number of dental hygienists however continued to provide education and clinical services in public health clinics and schools.

A review of journals, newspaper archives, association publications, and personal interviews confirms that dental hygienists also provided dental hygiene services in private homes, and dental hygiene clinics as independent contractors and sole proprietors in independent practices. Betty Sherman, RDH, an independent contractor, owned her practice in Richland, Washington, and began accepting referrals from her previous dentist employers in 1970 (personal communication). An article titled, *Contract Practice: An Alternative*, published in JADA, June 1983 discussed the merits of contracting with Ms. Sherman.⁵ Beverly Brill Jenkins, was a sole proprietor of Dental Hygiene Associates in Portland Oregon, where for 25 years she provided care for patients (personal communication).⁶ Linda Krohl became a well-known sole proprietor in California in 1976.^{6,7} In 1977, Anne Wells Hunnicutt saw her first patient and continued as an independent dental hygienist for 15 years, treating 3000 patients in California.⁸ Susan Edwards treated patients in her home-based office in Pennsylvania in the early 1980s.⁹ The Arizona Daily Star featured Joyce Anderson, the first dental hygienist in Arizona to open her own practice after a 1980 practice law revision allowing general supervision.¹⁰ JoAnn Grant opened Associates in Dental Hygiene, a private dental hygiene practice in Fort Collins, Colorado in 1981.¹¹ These early pioneers, and others, often received support, encouragement and patient referrals from their previous employers. Some, however, were confronted by dental boards, individual dentists and dental hygienists, and associations resulting in practice closures and costly legal challenges.

In 1972, the California Health Manpower Pilot Project (HMPP 155) evaluated new or expanded roles/delivery alternatives for health care professionals including dental hygienists. A second California Health Manpower Pilot Project (HMPP 139) launched in 1981 to establish pilot dental hygiene practices. Despite legal challenge by organized dentistry in 1986 fifteen dental hygienists were initially certified in the program. They completed rigorous educational preparation at California State University at Northridge, and then established dental hygiene practices to provide services in a variety of sites focused on increasing access to care^{8,12,13} (an example is provided in Box 1).

Dental hygienists in several other states pursued changes to increase independence and create direct access to dental hygiene services. Change came about through legislative success, by rule, or policy. Washington State became the first state to legislate change that allowed dental hygienists to

Box 1.

California – Dental Hygiene Out & About

Judy Boothby, RDHAP, founded **Dental Hygiene Out & About**, a mobile practice in 1998. She was a member of the first HMPP class in 1986, and the first dental hygienist to receive a Registered Dental Hygienist in Alternative Practice license in California in 1998. Judy travels to homebound patients, skilled nursing centers, assisted living, memory care centers, and intermediate care facilities for developmentally disabled residents. Her staff consist of a fellow RDHAP, dental assistants, and office manager husband David. They provide care for 40–50 patients a week in the greater Sacramento Metropolitan Area. Judy says, "My goal was to establish a professional, reliable, preventative dental hygiene practice for members of our community that could not visit a dental office. It is imperative that dental hygiene care be delivered in a caring, sensitive, ethical manor to preserve the dignity of all of those we treat. By setting the standards high, we can reach our collective goals for better dental health of our underserved population in California and across the country."

Used with permission of Judy Boothby, RDHAP, Dental Hygiene Out & About.



provide dental hygiene services without dental supervision in 1984 (WA. RCW 18.29.056). In 1987, Colorado became the first state to allow dental hygienists to provide services in all settings, and to provide a dental hygiene diagnosis and radiographs in addition to other dental hygiene services (CO. Sec. 12-35-122.5). The Michigan Department of Community Health established Public Dental Prevention Programs (MI. PA161) in 1991 (see Box 2). New Hampshire adopted a rule related to Public Health Supervision in 1993 that allowed dental hygienists to provide treatment of patients in certain settings with a standing order from a dentist (Rule 302.02 (d); 402.01 (c)).

CURRENT STATE OF DIRECT ACCESS CARE

According to the American Dental Hygienists' Association, 36 states currently allow dental hygienists to provide various levels of direct access services (see **Figure 1**). These 36 states achieved varying levels of direct access care over the past 30 years (see **Table 1**).

A detailed summary of each State's direct access information is available on the ADHA website (ADHA.org) or on many state specific websites.

The exact number of direct access providers in the United States is unknown. States that require provider registration, endorsement, examination, or practice reporting are better able to identify numbers of direct access providers. The California Dental Hygiene Committee for example reports that 445 dental hygienists are licensed with the title of Registered Dental Hygienist in Alternative Practice (RDHAP, personal interview). The Oregon State Board of Dentistry reports 355 Expanded Practice Dental Hygienists (EPDH) are licensed to provide direct access services (personal interview). It is not specifically known if all of those licensed are actively providing services. Only dental hygienists providing services in senior centers or schools are required to report to Washington State. Reporting requirements allow states to identify outcomes in terms of population served, services provided and other data. States that assign Medicaid provider numbers to dental hygienists can develop reports indicating services provided, client types, and numbers of clients seen by dental hygienists. In States that do not assign credentials, or require practice reporting, professional associations may track provider information, and anecdotal provider numbers may exist.

Laws, Regulations, and Endorsements for Direct Access Care

Dental hygienists providing direct access care must adhere to applicable federal laws, regulations and guidelines such as those from the Internal Revenue Service, Department of Labor, Department of Health and Human Services, Centers for Medicare and Medicaid Services, Health Insurance Portability and Accountability Act of 1996, Centers for Disease Control and Prevention, and the Affordable Care Act. Each state, county and city enforces laws and regulations related to business ownership. Most require business licensing, registration of business names, payment of business taxes, and practice laws and regulations that relate to providing direct access dental hygiene services.

Individual state requirements vary by legislative enactments, regulations, or policy changes that permit delivery of direct access services. The adopted models are state specific. They resulted from sometimes strenuous negotiations among the stakeholders who typically included members of professions, leaders of dental hygienists' associations and dental

Box 2.**Michigan – Public Dental Prevention Programs**

The Michigan Department of Community Health, Public Dental Prevention Programs (PA161) has been in place since 1991.

Today fifty-five public or non-profit programs address access to care issues and provide preventive services. Care is provided in a variety of settings. One program “Covenant Community Care” is an FQHC in the Detroit area where a group of dental hygienists provide care for children at Headstarts and school sites, and see persons with disabilities and the dentally underserved. “We have found that being a PA 161 dental hygienist provider has given us wings to expand the safety net for children and adults,” says Nancy Harmon, RDH. “Smiles on Wheels” in the Jackson county area is a success story for an individual program of six dental hygienists. Together they serve children at Headstarts and school sites, and senior adults in a variety of settings (see **Table 1**).

Used with permission of Susan Deming, RDH, BS, Michigan Department of Community Health, Oral Health Program.

associations, legislators, oral health and other coalitions, and representatives of affected populations. In most negotiations some participants supported direct access, some opposed it, and not every resulting model represents the ideals of each stakeholder group.

A few states developed identifying credentials or endorsements to identify direct access providers. In 1997 Oregon created the Limited Access Permit, with the credential LAP. Oregon amended the credential in 2011 to EPDH, Expanded Practice Dental Hygienist. California credentialed dental hygienists providing unsupervised services as RDHAP, Registered Dental Hygienist in Alternative Practice in 1998. Other states created specific permits including Arkansas who issues, Collaborative Care Permits (CCP I or CCP II) and Kansas with Expanded Care Permits (ECP I, II or III). Most direct access states have no additional credential.

PRACTICE EXPERIENCE AND EDUCATION REQUIREMENTS

States require a wide range of additional requirements beyond dental hygiene licensure to provide direct access care. These vary from none to a set amount of previous practice experience and/or additional education in order to provide direct access care. Various states define previous practice experience in hours of practice, years of practice, or a combination of both.

Colorado has no additional requirements beyond an active license.¹⁴ Arizona requires that a dental hygienist “has had a license as a dental hygienist for at least five years and actively engaged in dental hygiene practice for at least 2000 hours in the 5 years immediately preceding the affiliated practice relationship.”¹⁵ Oregon requirements are

2500 hours of supervised dental hygiene practice and after licensure completion of 40 h of approved continuing education course. Alternatively, a dental hygienist may complete a board approved course of study including least 500 h of dental hygiene practice (before or after graduation from a dental hygiene program) on patients described in ORS 680.205 under direct supervision by a dental or dental hygiene program faculty member.”¹⁶ California’s rigorous requirements include a bachelor degree or equivalent, plus successful completion of 150 approved course hours.¹³ Maine requires that a dental hygienist with a bachelor’s degree in dental hygiene “document 2000 work hours of clinical practice in a private dental practice or nonprofit dental clinic under direct or general supervision of a dentist during the 4 years preceding application.” A dental hygienist with an associate degree in dental hygiene must “document 5000 work hours of clinical practice in a private dental practice or nonprofit dental clinic under direct or general supervision of a dentist during the 6 years preceding application.”¹⁷

Additionally, states may have other requirements such as: professional liability insurance, practice agreements, emergency and referral sources, data reporting, and continuing education. Specific, additional or modified requirements can be obtained from the state licensing authority.

SUPERVISION REQUIREMENTS

The majority of the states are moving toward a decrease in supervision.¹⁸ A range of supervision from general supervision to some supervision to no supervision allows dental hygienists to provide services in direct access states. States may have a mix of supervision requirements depending on factors such as where services are provided and what services are performed. An example of mixed supervision requirements exists in Arizona. In 2004, an Affiliate Practice Agreement required specific stipulations for the affiliating dental hygienist and dentist. The agreement identified procedures, settings, referrals and follow-up care protocols, and developed standing orders that the dental hygienist must follow. In 2006, Arizona allowed a dental hygienist contracted with schools, public health settings and in institutions to screen patients and apply fluoride unsupervised (AZ 32-1289B). Each State uses specific terms that identify required supervision levels and supervision relationships. Affiliate practice, alternative practice, collaborative practice, extended practice permit, general supervision, limited access permit, public health endorsements, public health permits, public health supervision, off-site supervision, and remote supervision are some of the terms defined and required by practice acts and regulations.

New Mexico developed and allowed the first collaborative practice model for dental hygiene in 1999.¹⁹ Several other

Colorado allows unsupervised practice in all settings however requires general supervision when administering local anesthesia. California, Connecticut, Maine, Missouri, New Mexico, Oregon and Washington allow unsupervised practice with some limited supervision requirements, practice agreements, restrictions of scope of practice, and/or limitations on sites where services may be provided.

Other States allow general supervision, public health permits, and other forms of care pre-authorized by a dentist that create less restrictive options for patients to receive services. In some cases however, the patient must be examined by a dentist within a set time limit after dental hygiene service is provided. This is the case in Florida and South Dakota where a patient must be seen by a dentist within 13 months (FL 466.003/466.024; SD L -36-6A-40). In Oklahoma a patient may be seen one time prior to a dental examination (OK L -328.34). Other states require a referral to a dentist for dental diagnosis and dental treatment planning following services provided by a dental hygienist without a specified time limit.

DIRECT ACCESS SETTINGS

Settings for direct access care are often determined by the need for un-served or under-served Americans to access oral care. For the majority of states, there is a movement toward increased access to dental health care for the under-served American population.¹⁸ Each direct access state determines the settings where services may be provided. The setting and populations served are similar in many states. Some states have created long listings of settings, others have short listed specific settings, and a few states, such as Colorado and Maine allow independent dental hygienists to provide care in all settings.

A review of state practice acts identifies many direct access settings such as: long-term care facilities, free clinics, hospitals, schools, head start programs, residences of homebound patients, health departments, community health centers, state and county correctional institutions, home health agencies, group homes, migrant work facilities, shelters for victims of domestic abuse, foster homes, facilities for persons with mental illness, medical offices or offices of nurse practitioner, midwives or physician assistants, job training centers, senior centers, and Indian health centers (see Boxes 3–6).

SCOPE OF SERVICES

Some states created long, detailed listings of permitted services. Other states have shorter listings or list what services may and may not be provided. For example, Iowa allows "a dental hygienist providing services under public health supervision to provide assessments; screenings; data collection; and educational, therapeutic, preventive, and diagnostic services as defined in rule 10.3 (153), except for the

Box 3.

SOUTH CAROLINA - Health Promotion Specialists

Health Promotion Specialists was founded in 2000 by Tammi O. Byrd, RDH as a school-based dental prevention program. The program employs 20 RDHs, 2 dentists, and four administrative employees. They serve over 20,000 children each year in schools, and Head Starts programs in South Carolina. Since the start of the program, restorative needs have dropped dramatically. There is no longer a racial disparity among the children that have received dental sealants in the state. The program serves as the most consistent form of "dental home" for children in many areas of South Carolina. All children seen are referred to local providers for needs that fall outside the scope of practice of the dental hygienists. Tammi says, "Our program has been a "character-enhancing opportunity" that has changed the children's lives as well as the providers."

Used with permission of Tammi O. Byrd, RDH, Health Promotion Specialists.



administration of local anesthesia or nitrous oxide inhalation analgesia. The hygienist can only provide services as specified in the written supervision agreement and under the protocols specified in the agreement."²⁰ States with collaborative practice may contain the provision that the agreement can stipulate what services are allowed.

This creates a potential for varied scope of practice within the same state.

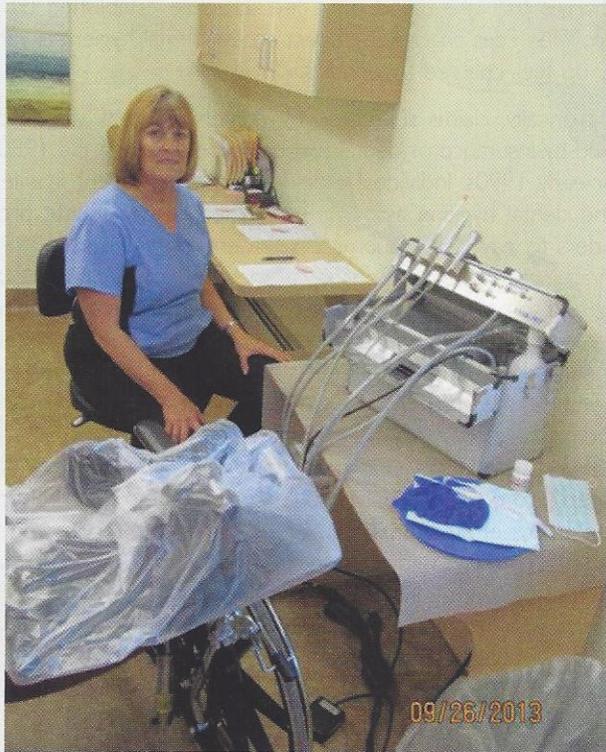
Commonly in most direct access states, screening/assessment, oral prophylaxis, fluoride application and sealants are permitted. Some other specifically identified services may include: assess and record medical and dental histories, oral hygiene instructions, nutritional counseling, oral inspection, oral cancer screening, charting, vital signs, root planing, curettage, periodontal maintenance, x-rays, diagnosis, treatment planning, topical anesthesia, atraumatic restorative technique (interim therapeutic restoration), adjustment and soft relines of dentures, smooth sharp teeth, smooth and

Box 4.

MONTANA – Dental Hygiene Connections

Judy Harbrecht, RDH, began providing care at Billings Clinic/ Aspen Meadows, a skilled nursing facility in Billings in the fall of 2003. Most of the clinic equipment were donated or secured through grant funds. Judy provides assessments, prophylaxis, fluoride, root planning, and dental referral services for 90 facility residents. She reports two of her patients recently visited her clinic for the 19th time. In 2011, Judy formed **Dental Hygiene Connections** with two additional dental hygienists. Together they have provided services for 197 patients at another skilled nursing home, St. John's Lutheran Ministries. They accept private pay and Medicaid eligible patients. Judy says, "I've been a dental hygienist for forty-five years, and this is the BEST!"

Used with permission of Judy Harbrecht, RDH, Dental Hygiene Connections.

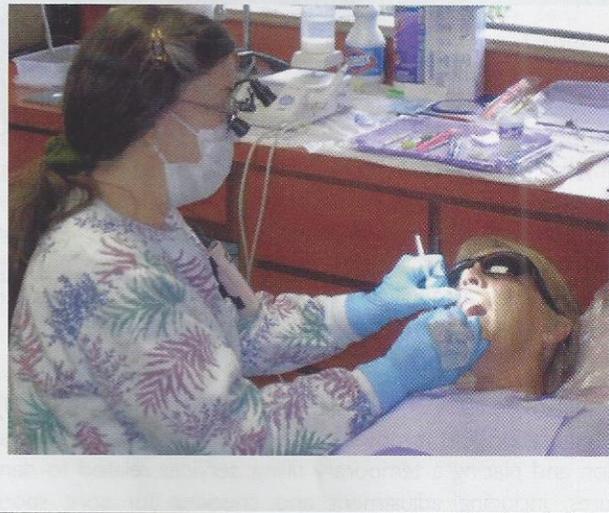


Box 5.

WASHINGTON – Eldercare Dental Hygiene Services

Eldercare Dental Hygiene Services started in 1999. Owner, Anita Rodriguez, RDH, BSDH cares for 245 elderly adults, and adults with developmental or acquired disabilities. She travels to a variety of long term care residential settings, and to senior centers in eight Washington counties. Most often retired seniors have no private dental insurance. She sees Medicaid eligible patients, and provides services at reduced fees. She makes a special effort to link patients with a dentist in the community who is willing to accommodate the financial needs and physical limitations of her patients. Anita says, "One of the most valuable services provided is triage. Patients, family members, and staff are advised of dental or other needs that require care by a dentist or other health professional." Other services include prophylaxis, fluorides, root planing, and developing comprehensive daily oral care plans that contribute to the oral and general health of her patients.

Used with permission of Anita Rodriguez, RDH, BSDH, Eldercare Dental Hygiene Services.



registered dental hygienist in alternative practice may perform any of the duties (general supervision duties) or functions authorized to be performed by a registered dental hygienist."¹³

It is apparent that some state practice acts are more progressive and have a less restrictive scope of practice. Colorado, Kansas and Oregon have more progressive acts. In Colorado, a "dental hygienist may perform dental hygiene assessment, dental hygiene diagnosis, and dental hygiene treatment planning for dental hygiene services."²¹ Further a dental hygienist may take radiographs, and administer local anesthesia under general supervision.

Oregon in 2011, Sec 680.205 added the following services to the scope of practice of an Expanded Practice Dental Hygienist (EPDH) provided the dental hygienist entered into an agreement with a dentist: administer local anesthesia; place

polish restorations, remove overhangs, apply desensitizing agents, cement pontics and facings outside of mouth, impressions for athletic mouth guards and custom fluoride trays, place and remove rubber dams, temporary restorations, apply topical antimicrobials, local anesthesia, extraction of mobile teeth, pulp vitality testing, prescribe fluorides and antimicrobials, and referral to dentist. This listing is in no specific order, and does not represent how many states allow the service, however does emphasize the extent of care provided by dental hygienists. California code simply states that, "...a

Kansas – Dental Hygiene Outreach

Over sixty dental hygienists with Extended Care Permits provide services in one of three practice models without the supervision of a dentist. First, State and federally funded dental safety net clinics employ or contract with dental hygienists to provide screenings, prophylaxes, fluoride applications and sealants at local schools, long term care facilities, Head Start programs, or Woman, Infant, and Children programs (see **Table 2**). Second, two dental hygienists provide care at two clinics for special needs children with cerebral palsy, cleft lip cleft palate and spinal cord injury. They work in tandem with other health providers and families caring for 3600 children in each of the past three years. A third model focuses on providing care for patients with no 'dental home' in areas of Kansas without access to a safety net clinics. Pregnant women, children from birth to age five, and Medicaid eligible children up to age five, receive care at Head Start programs and at local health departments. In the past 5 year period, close to 7000 patients received services.

Used with permission of Kathy Hunt, RDH, ECP III, Kansas Dental Hygiene Outreach.

temporary restorations without excavation; prescribe prophylactic antibiotics and non-steroidal anti-inflammatory drugs specified in the agreement; administer nitrous oxide under the indirect supervision of a dentist; assess the need for and appropriateness of sealants; apply sealants; and write prescriptions for all applications of fluoride in which fluoride is applied or supplied to patients.²²

Kansas Sec 65-1456 added additional services allowed by a dental hygienist with an Extended Care Permit III (ECP III): identification and removal of decay using hand instrumentation and placing a temporary filling; services related to dentures, including adjustment and checking for sore spots; smoothing of a sharp tooth with a slow speed dental hand-piece; use of a local anesthetic within certain limitations; extraction of deciduous teeth within certain limitations; and other duties delegated by the sponsoring dentist which are consistent with the Act.²³

PRACTICE AND BUSINESS STRUCTURE

Dental hygienists provide direct access services as volunteers, employees, independent contractors and practice owners. Many state public health departments employ or contract with dental hygienists to provide services in clinics, schools and other sites. Dental hygienists in California, Colorado, Maine, New Mexico, Montana, Oregon, South Carolina, and Washington for example own dental hygiene businesses and provide services in many settings. These practices have a variety of business structures including sole proprietorships, partnerships, for-profit, and not-for-profit corporations. A dental hygiene business may be established according to the

laws and regulations of individual states. All businesses are subject to state and local laws and regulations. All must be licensed, pay applicable taxes, adhere to employment regulations, workplace safety standards and other regulations.

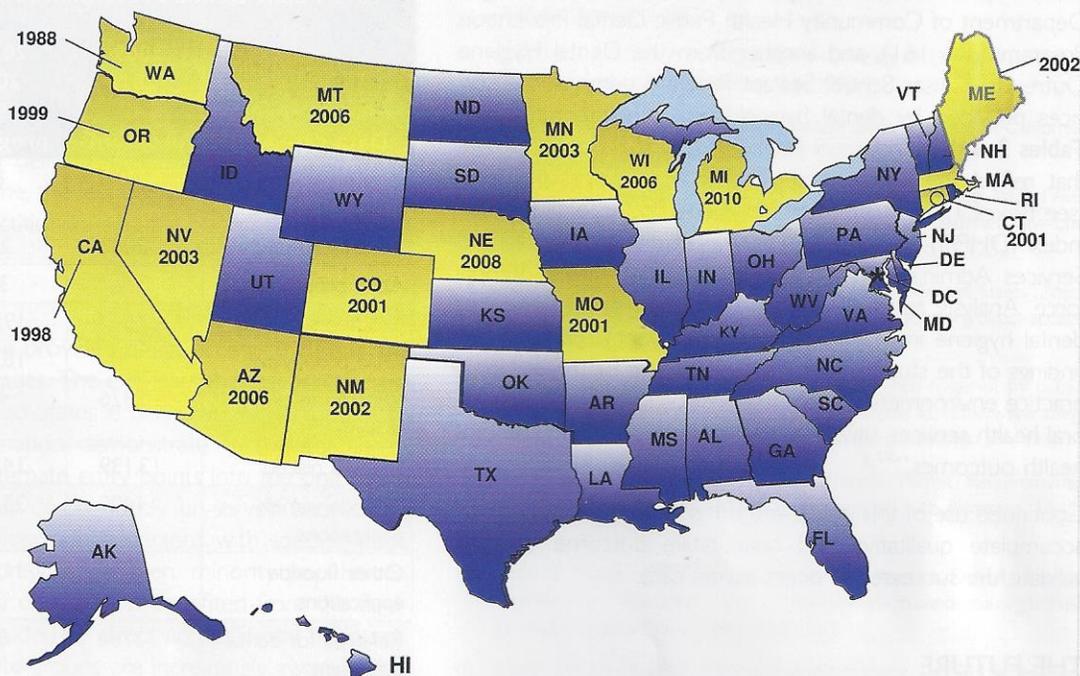
PAYMENT AND REIMBURSEMENT

Direct access providers receive payment or reimbursement for services from several entities. These may include: private payment, private health insurance corporations with embedded or stand alone dental benefit plans, dental service corporations, self-insured groups (ERISA), federal and state programs such as Medicaid and Children's Health Insurance Program (CHIPs), agency funds, facility funds, public grants, and private grants. Private payments are fee-for-service charges that are based on a fee schedule established by a provider. Fees charged by direct access dental hygienists vary as do fees charged by dentists.

Historically, claims submitted by dental hygienists were not paid by insurance or dental service corporations in the 1980s or early 1990s. Individual providers, patients, patient families, and dental hygiene associations lobbied dental benefit providers to pay claims submitted by dental hygienists. In 1996 Washington Dental Service, a member of Delta Dental agreed to pay claims submitted by dental hygienists providing services under Washington State RCW 18.29.056. Currently a number of dental insurance plans and dental service corporations pay claims for services provided by dental hygienists. Dental hygienists may be identified as in-network or out-of-network providers. Payment for claims may be made directly to dental hygienist providers or to the plan members. Dental hygienists submit claims for services with service codes defined by the American Dental Association Code on Dental Procedures and Nomenclature.²⁴ Dental hygienists are identified on all electronic submissions by a national assigned provider number (NPI) and a healthcare provider taxonomy code (124Q00000X) as required by the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Colorado and New Mexico have a 'provider nondiscrimination' clause in the insurance codes (CO, CRS 10-16-107.7; NM, 59A-47-28.4). Provider nondiscrimination generally means that a plan offering dental benefits cannot discriminate with respect to participation of any provider acting within their scope of practice. It is important to consider however that not all third party payers are regulated by state insurance laws. Some large corporations or labor unions may elect to self-insure and are regulated under the U. S. Department of Labor's Employee Retirement Income Security Act of 1974 (ERISA). These programs are not subject to state insurance laws. ERISA plans may be self-administered or contracted, for example, with a dental service corporation for claims payment. These plans may elect to pay or not pay dental hygienists' claims.

Figure 2. Dental hygienists receive direct reimbursement from Medicaid in sixteen states.

Dental Hygienists as Direct Reimbursement Medicaid Providers



States where dental hygienists may be directly reimbursed as medicaid providers.



Revised April, 2014
www.adha.org

Used with permission of the American Dental Hygienists' Association.

Washington State's Medicaid program was the first to grant provider enrollment by dental hygienists in 1988. As of 2014, dental hygienists in 16 states may enroll as Medicaid providers and receive direct reimbursement for services provided for Medicaid eligible patients (see **Figure 2**). Each state's Medicaid program determines allowable reimbursement codes that may be billed by dental hygienists and sets reimbursement rates.

Federal rules mandate that all state Medicaid programs cover comprehensive dental services for children. The Children's Health Insurance Program (CHIP) extends coverage for children in families with incomes too high to qualify for Medicaid, but cannot afford private coverage. The Affordable Care Act will provide an additional \$40 million in federal funding to continue efforts to promote enrollment in Medicaid and CHIP.²⁵ Federal rules do not mandate that state Medicaid programs cover services for adults. Almost all states however provide emergency dental services for adults. Other state Medicaid programs cover many dental services

for all adults, or select adult populations such as disabled adults, and adults living in long-term care facilities.²⁶

OUTCOME MEASURES

There are no universal state regulations that require dental hygienists to report practice data. Over the past decades however reports and articles have been published related to direct access. One of the most referenced reports is the California HMPP. The pilot projects concluded that independent practices by dental hygienists: "provided access to dental care, satisfied customers, and encouraged visits to the dentist"²⁷; "consistently attracted new patients, charged lower fees, and preventive services were more available to Medicaid patients than they would be in a dental office"²⁸; and "produced outcomes in both structural and process aspects of care that in many cases surpassed those available in dental offices in quality, achieved high patient satisfaction, and showed no increased risk to the health and safety of the public."²⁹

Information from professional associations, government agencies, and anecdotally by self-report by dental hygienists continue to demonstrate increasing number of providers and services provided. Two reports, one from the Michigan Department of Community Health Public Dental Prevention Programs (PA 161), and another from the Dental Hygiene Outreach- Kansas School Sealant Program demonstrate services provided by dental hygienists in local programs (see Tables 2 and 3). Individual providers also share practice data that reflect the numbers of patients and services provided (see Boxes 1,3–5). The Dental Hygiene Professional Practice Index (DHPI) was created by the Health Resources and Services Administration (HRSA) Center for Health Workforce Analysis to study the legal practice environment of dental hygiene in the U.S. as of December 31, 2001. “The findings of the study suggest that expanding the professional practice environment of dental hygienists improves access to oral health services, utilization of oral health services and oral health outcomes.”³⁰

Continued use of this index, and other research is needed to accumulate qualitative and quantitative outcome data to validate the successes of direct access care.

THE FUTURE

The growth of direct access care is increasing in the United States. In 1995 only 5 states allowed direct access care, by 2013 36 states have made regulatory or legislative changes. Several factors will continue to drive this growth. A large body of research supports the impact of oral health on total health. Health professions, the public, and states increasingly recognize the need to provide preventive, cost-effective oral care services for larger numbers of Americans. The number of dentists is decreasing while the number of dental hygienists is increasing with a 38% projected growth from 2010 to 2022.³¹ The aging population is keeping more teeth longer, and with longer life expectancy will increase demand for oral care services³² (see Yellowitz and Schneiderman, *Elders Oral Health Crisis*, this publication). The continued development of teledentistry will provide for greater ease in professional communications and diagnostic efficiency³³ (see Daniel and Kumar, *Teledentistry: A Key Component in Access to Care*, this publication).

Additionally, the Affordable Care Act (ACA) is projected to increase the number of enrollees in public programs that (initially) include an additional \$40 million in federal funding for children’s dental services in Medicaid and CHIP programs.^{25,34} The ACA also contains a provision that will award a limited number of grants to demonstration program that utilize alternative dental health care providers to increase access to dental health care services in rural and other underserved communities.³⁵ Finally, change is being driven by the public, coalitions and foundations that support the need for better access to care. These individuals and groups have

Table 2. Data for services provided by Public Dental Prevention Programs (PA 161)

Michigan Department of Community Health April 23, 2013 Public Dental Prevention Programs (PA161)			
Data category	2009–2010 47 programs	2010–2011 53 programs	2011–2012 55 programs
% of programs reporting	60%	83%	93%
Adults screened	2088	2995	4235
Adult prophylaxis		3819	3968
Children screened	23,542	19,668	28,599
Child prophylaxis		18,852	19,855
Children receiving sealants	3326	4597	5800
Sealants placed	13,139	14,160	18,365
Fluoride varnish applications	1409	25,884	27,615
Other fluoride applications		11,112	2278
Referred for dental treatment	3786	8448	17,558
Reported receiving treatment	1457	1745	3937

Used with permission of Susan Deming, RDH, BS, Michigan Department of Community Health, Oral Health Program.

Table 3. Data for services provided by Dental Hygiene Outreach, Kansas School Sealant Program

Dental hygiene outreach, Kansas school sealant program			
	2010–2011	2011–2012	2012–2013
Prophylaxis	4462	7905	12,072
Fluoride treatment	15,719	14,172	17,332
# of children sealed	1468	5085	5274
# of sealants placed	6272	22,156	21,914
# of schools participating	118	258	355

Used with permission of the Kansas Bureau of Oral Health.

impact on the legislative process and the delivery of future oral care services.

In response to these demands, ADHA developed a master’s-level educational model for a mid level provider, the Advanced Dental Hygienist Practitioner (ADHP). The ADHP will provide a wider range of preventative oral health and

restorative services.³⁰ Alaska, Minnesota and Maine have created new mid-level providers: dental therapists and advanced dental therapists.^{36,37} Several other states are considering legislation to create mid-level providers.

Direct access states are recognizing the success of direct access care. Further amendments to practice acts are allowing for a wider range of services and provision of care in more oral health settings. These changes will also help to create a more uniform list of delivery sites and services. The more similar the acts become, the less confusion there will be from state to state for practitioners and the public.

CONCLUSION

Dental hygienists have provided direct access to care in the United States for decades. The exact number of direct access providers in the United States is unknown. Limited research and anecdotal information demonstrate that direct access care has facilitated alternate entry points into the oral health systems for thousands of previously un-served and under-served Americans. Older adults, persons with special needs, children in schools, pregnant women, minority populations, rural populations, and others have benefited from the availability of services provided by direct access dental hygienists. Legislatures and private groups are increasingly aware of the impact that direct access has made on the delivery of oral health care. Many factors continue to drive the growth of direct access care. Additional research is needed to accumulate qualitative and quantitative outcome data related to direct access care provided by dental hygienists and other mid level providers of oral health services.

REFERENCES

1. U.S. Senate Committee on Health, Education, Labor & Pensions, Subcommittee on Primary Health and Aging, Chair Bernard Sanders, February 29, 2012. Dental Crisis in America: The Need to Expand Access. Available at: <http://www.help.senate.gov/hearings/?id=a4b31ccd-5056-9502-5d8c-93b8b9da5d60>; Accessed 17.12.13.
2. American Dental direct-access Hygienists' Association. Direct Access. Available at: <http://www.adha.org/direct-access>; Accessed 17.12.13.
3. Motley WE. History of the American Dental Hygienists' Association 1923-1982. Chicago: American Dental Hygienists' Association; 1983:43.
4. Connecticut Dental Hygienists Association. The History of Dental Hygiene. Available at: <http://www.cdha-rdh.com/home/historyofdentalhygiene.htm>; Accessed 17.12.13.
5. Contract practice: an alternative. J Am Dent Assoc 1983;106(6):796-7.
6. Dreyer R. Four independent contractors (and how they grew). RDH; 1984; July-Aug:37-41. 47-8.
7. Lampner J. On Her Own, The Dental Hygienist. 1977; June:6,9.
8. Emmerling H, Standley E. The long and Winding Road. RDH. Available at: <http://www.rdhmag.com/articles/print/volume-30/issue-11/features/the-long-and-winding-road.html>; Accessed 17.12.13.
9. Conrad D, Milgrom P. Market forces. In: Kurdle RT, Meskin L, eds. Reducing the Cost of Dental Care. University of Minnesota Press; 1983: 3-34.
10. Powers M. Dental Hygienist on Her Own, a Pioneer in State. The Arizona Daily Star; 1980.
11. Anderson K, Bauer B, Chu P, Koshetz C, Staats D. Dental Hygienist is Filling a Need. USA Today; August 4, 1983.
12. Mertz E, Glassman P. Alternative practice dental Hygiene in California: past, Present and future. J Calif Dent Assoc 2011;39(1):37-46.
13. State of California: Business and Professions Code Section 1900-1966. Available at: <http://www.leginfo.ca.gov/cgi-in/displaycode?section=bpc&group=01001-02000&file=1900-1966.6>; Accessed 17.12.13.
14. American Dental Hygienists' Association. Direct Access States/Direct Access Chart; 2012. Available at: <http://www.adha.org/direct-access>. Accessed 18.12.13.
15. State of Arizona: 32-1289. Employment of dental hygienist by public agency, institution or school; definitions. Available at: <http://www.azleg.gov/legtext/49leg/2r/bills/sb1419p.htm>; Accessed 18.12.13.
16. State of Oregon: Issuing Expanded Practice Permit Requirements. Available at: <http://www.oregonlaws.org/ors/680.200>; Accessed 18.12.13.
17. State of Maine: Applicant for Independent Practice Dental Hygiene Licensure. Available at: <http://www.mainedental.org/forms/DentalPracticeAct.pdf>; Accessed 18.12.13.
18. Catlett AV, Greenlee R. A retrospective comparison of DH supervision changes for 2001 to 2011. J Dent Hyg 2013;87(3):110-6.
19. State of New Mexico: Dentists and Dental Hygienist Collaborative Practice 16.5.17 NMAC. Available at: http://www.nmcpr.state.nm.us/nmac/_title16/T16C005.htm; Accessed 18.12.13.
20. State of Iowa: Hygienists – Public Health Supervision – Allowable hygiene duties. Available at: <http://www.state.ia.us/dentalboard/practitioners/hygienists/public-health-supervision.html>; Accessed 18.12.13.
21. State of Colorado: 12-35-124. What constitutes practicing unsupervised dental hygiene. Available at: <http://cdn.colorado.gov/cs/Satellite?blobcol=urldata&blobheademame1=Content-Disposition&blobheadername2=Content-Type&blobheadervalue1=inline%3B+filename%3D%22Colorado+Revised+Statutes+for+Dentists+and+Dental+Hygienists%2C+effective+July+1%2C+2011.pdf%22&blobheadervalue2=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251832178076&ssbinary=true>; Accessed 18.12.13.
22. State of Oregon: Services rendered under permit. Available at: <http://www.oregonlaws.org/ors/680.205>; Accessed 20.12.13.
23. State of Kansas: Dental Practice Act Amendments; Creation of Extended Care Permit III Dental Hygienists; ECP III Scope of Practice. Available at: http://www.kslegislature.org/li_2012/b2011_12/measures/documents/summary_hb_2631_2012.pdf; Accessed 20.12.13.
24. Code on Dental Procedures and Nomenclature. Available at: <http://www.ada.org/3827.aspx>; Accessed 20.12.13.
25. Children's Health Insurance Program (CHIP). The Affordable Care Act Extends CHIP and Enhances Federal Funding. Available at: <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Childrens-Health-Insurance-Program-CHIP/Childrens-Health-Insurance-Program-CHIP.html>; Accessed 20.12.13.

26. State Health Policy Monitor, Medicaid Coverage of Adult Dental Services. Available at: <http://www.nashp.org/sites/default/files/Adult%20Dental%20Monitor.pdf>; Accessed 20.12.13.

27. Perry DA, Freed JR, Kushman JE. Practice characteristics of dental hygienists operating independently of dentist supervision. *J Public Health Dent* 1997;57(Spring).

28. Kushman JE, Pery DA, Freed JR. Practice characteristics of dental hygienists operating independently of dentist supervision. *J Dent Hyg* 1996 September-October;70(5):194-205.

29. Freed JR, Pery DA, Kushman JE. Aspects of quality of dental hygiene care in supervised and unsupervised practices. *J Public Health Dent* 1997;57(2):68-75. Spring.

30. American Dental Hygienists' Association. Facts about the Dental Hygiene Workforce in the United States. Available at: http://www.adha.org/resources-docs/75118_Facts_About_the_Dental_Hygiene_Workforce.pdf; Accessed 20.12.13.

31. Bureau of Labor Statistics, US Department of Labor, Occupational Outlook Handbook, 2010-11 Edition, Dentists, Dental Hygienists.

Available at: <http://www.bls.gov/ooh/About/Projections-Overview.htm>; Accessed 20.12.13.

32. The Next Four Decades - The Older Population in the United States: 2010 to 2050. Available at: http://www.aoa.gov/Aging_Statistics/future_growth/DOCS/p25-1138.pdf; Accessed 20.12.13.

33. Summerfelt FF. Teledentistry-assisted, affiliated practice for dental hygienists: an innovative oral health workforce model. *J Dent Educ* 2011;75(6):733-41.

34. Compilation of Patient Protection and Affordable Care Act. Available at: <http://housedocs.house.gov/energycommerce/ppacacon.pdf>; Accessed 20.12.13.

35. Title V — Health Care Workforce. Available at: <http://www.hhs.gov/healthcare/rights/law/titlev-healthcare-workforce.pdf>; Accessed 20.12.13.

36. Alaska Dental health Aide Therapist Initiative. Available at: <http://www.anthc.org/chs/chap/dhs/>; Accessed 20.12.13.

37. A History of Minnesota's Dental Therapist Legislation. Available at: http://www.mndental.org/_asset/wcd3cz/Dental-Worker-1-10-11-3-2_.pdf; Accessed 20.12.13.

Acknowledgments

The author acknowledges the assistance of the American Dental Hygienists' Association, Governmental Affairs Division in the preparation of this article.

Table 3. Data for Table 1

State	Year	Number of Dental Hygienists
Alaska	2008	10
Alaska	2009	10
Alaska	2010	10
Alaska	2011	10
Alaska	2012	10
Alaska	2013	10
Alaska	2014	10
Alaska	2015	10
Alaska	2016	10
Alaska	2017	10
Alaska	2018	10
Alaska	2019	10
Alaska	2020	10
Alaska	2021	10
Alaska	2022	10
Alaska	2023	10
Alaska	2024	10
Alaska	2025	10
Alaska	2026	10
Alaska	2027	10
Alaska	2028	10
Alaska	2029	10
Alaska	2030	10