



Access to Care for People With Special Needs: Role of Alternative Providers and Practice Settings

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Abstract

Oral Health in America: A Report of the Surgeon General released in 2000 was the first-ever surgeon general's report on the status of oral health in the United States. It clearly outlined a growing set of challenges in such areas as reducing oral health disparities, improving access to oral and dental care, and prevention of common dental diseases.¹ Findings revealed that 75 percent of dental disease is found in 25 percent of the population. California's children have twice as much untreated decay as their national counterparts.² For children with special health care needs seeing a dentist, the data is sparse but a survey of general dentists conducted in 2001 showed that only 10 percent see these children often or very often.³

In California, more than one-third of the 35 million people in the state do not have access to oral health care. By 2028, the projected population increase is 50 million, with about one out of every eight Americans living in the state. Based on the 2000 census, America's population is projected to exceed 400 million in 2050, more than a 42 percent increase from the year 2000. The underserved populations are predominately Hispanic and African-American from lower socioeconomic levels. The number of people without dental insurance is three times the number of people without medical insurance.⁴

In the post-World War II era, dentistry has been predominantly provided by solo practitioners providing fee-for-service care.⁵ The roles of allied dental providers, dentists and dental services evolved based on the private practice model. With the advent of dental insurance, private practice businesses grew rapidly to serve the expanding insured population and those able to afford out-of-pocket dental expenses. About 56 percent of patients seen in private practice have a dental benefit



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plan (private, HMO, PPO); almost 31 percent are self-pay.⁶

In comparison, oral health care services provided outside of private dental offices have limited funding. Of the nearly \$53.8 billion spent in 1998 on dental services, only about 4 percent was funded by public sources.⁷ The dental safety net is small in comparison with the medical safety net. The dental safety net providers are underfinanced, understaffed, and overburdened. In response to the needs of those underserved Americans identified in the surgeon general's report, policy makers and stakeholders must now look beyond the existing system of finance, practice organization, and utilization of professionals.⁸

The Role of Allied Dental Providers

The role of allied dental personnel is cited as one strategy to address prevention, access to care, health care disparities, and the dental workforce and distribution issues. Dental hygienists and assistants are the primary personnel that comprise the allied dental health care workforce. For the past century, allied dental health care providers have played a critical role in meeting the nation's oral health needs. Since the 1960s, the size of the allied health workforce has continually increased.

Dental hygienists, with their focus on community health and preventive care, have been suggested as being the oral health professionals best poised to address issues of access.⁹⁻¹¹ The profession of dental hygiene comes from a tradition of promoting models and services to improve oral health for people with special needs and the underserved. The number and diversity of dental hygiene graduates grew consistently throughout the 1990s, from just over 3,900 in 1990 to nearly 5,300 in 1999, a 36 percent increase. As of 2003, 265 dental hygiene programs and 259 dental assisting programs graduated

5,693 and 4,822 providers annually in the United States.

In California, the 21 dental hygiene schools graduate approximately 383 registered dental hygienists per year. Currently, an estimated 15,430 RDHs practice in California. The diversity for dental hygiene graduates, in terms of race and ethnicity, is expanding as well. The number of black graduates grew from 331 in 1996 to 523 in 2003. For the Hispanic/Latino group, the numbers increased from 618 in 1999 to 832 in 2003, and the Native American/Alaska native group increased from 60 in 1996 to 90 in 2003.¹²

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State Models of Workforce and Practice Settings

The national debate about access has escalated to involve others outside the dental profession. The issues of access and health care workforce constraints are now seen as legitimate concerns for state legislators, consumers, provider organizations, and managed-care plan administrators.

Across the nation, a wide variety of models have evolved for involving dental hygienists in addressing workforce issues. Many of these workforce strategies and licensing options for dental hygienists are "works in progress." The scope of new duties and allowable practice settings differ state by state as does the title for the new role or category. Some of the categories of new

dental hygiene practice are called collaborative practice; limited-access permit; extended-care permit; registered dental hygienist in alternative practice; and public health supervision. The term "collaborative practice" will be used as the generic term in this article to refer to altered and expanded roles and duties of the hygienist provider. Some states have modified the State Practice Acts, or other statutory or regulation language to allow for different roles and practice settings for hygienists. A sampling of states and their workforce innovations, services and regulations follows.

Washington

A pioneer state in 1984, Washington initiated changes to regulations. The hygienist is authorized to examine patients prior to an exam by a dentist and conduct the dental hygiene treatment plan, scale, root plane, curettage, and provide prevention education. As of 2001, hygienists who are school-endorsed may assess the need for and apply sealants and fluoride varnishes. Currently, about 50 hygienists in the state are providing services to low-income children and families, people with special needs, high-risk teens, pregnant mothers, and the elderly.

Minnesota

As of 2003, hygienists in Minnesota can be employed by health care facilities, programs and nonprofit organizations, and may perform certain dental hygiene services without the patient first being examined by a dentist. The hygienist must have a "collaborative" agreement with a dentist. The title is CPDH, for collaborative practice dental hygienist. About six have applied for this status. Requirements include a history of active practice of at least 2,400 hours in the last 18 months.

Connecticut

In Connecticut, authorization was granted to provide services for children

in alternative settings. Services to adults in alternative settings were later added. In 1997, several state councils focused on dental access. Hearings were held and data from public health programs that included dental hygienists indicated higher utilization rates. One in particular, the Hartford School Program, utilized dental hygienists in the schools as an initiator of care and as a case manager. This allowed the dentist to focus on restorative procedures. Between 65 percent and 70 percent of all Medicaid children in Hartford receive services through the school program.¹³ The procedures allowed by the dental hygienists are dental hygiene exams, triage and referral, charting, prophylaxis/scaling, sealants, and related preventive and educational services.

In 1999, legislation was implemented which allowed dental hygienists with two years of experience to practice without supervision in alternative settings that included adults. Some of the alternative sites included hospitals, residential care homes, nursing and rest homes, home care agency sites, institutions, group homes, and health care facilities for people with disabilities.

Iowa

In Iowa, policy makers focused on the Medicaid EPSDT "Exception to Policy" waiver. The waiver or exception was needed for public health agencies to bill for certain services provided by the dental hygienists in communities lacking sufficient numbers of dentists to treat children on Medicaid. In 2000, the exception became policy. Data from 1999 and 2002 comparing counties using dental hygienists for screening and referral versus counties that did not, demonstrated significant increases in children receiving services in the counties in Iowa using hygienists.¹⁴

Kansas

In 2003, Kansas focused on adding a category to dental hygiene licensing called the Extended Care Permit I and

Extended Care Permit II. Both permits must be obtained from the Kansas Dental Board. Some of the requirements are that the RDH must have performed 1,800 hours or been an instructor for four semesters in the last three years; must be sponsored by a dentist; sign an agreement stating the dentist shall monitor the hygienists activities; provide copies of findings/treatment to the sponsoring dentist or clinic supervisor; and show proof of professional liability insurance. For Permit I, the allowable sites are schools, local health departments, Head Start Programs, indigent health care clinics, and state correctional institutions. The services provided may be prophylaxis, fluoride application, prevention education, assessment with diagnosis by a dentist, and other duties as delegated by the sponsoring dentist.¹⁵

For people with special needs, the Permit II is required. The duties are the same but there is an additional requirement to complete six hours of training on the care of special needs patients. The allowable alternative practice settings expand to adult care homes, hospital long-term care units, state institutions, and residences of people who are homebound.

California

To address access to dental hygiene care for underserved populations, the Registered Dental Hygienist in Alternative Practice category was first created in the 1980s as a California Health Manpower Pilot Project to allow hygienists to practice in alternative settings. The pilot project mechanism allows the Office of Statewide Health Planning and Development to demonstrate and evaluate new or expanded roles for health care professionals or delivery alternatives before changes in licensing laws were made by the Legislature. Examples of successful pilot projects include nurse practitioners, physician assistants, emergency medical technicians, and RDHAPs.



Roles

Twenty-one hygienists participated in the original RDHAP program before the project ended. Later, in 1997, AB 560 re-established the RDHAP as a licensed category, but the practice settings were more restricted and there were no educational programs established to allow hygienists to complete the educational requirements for this license. This meant there was no method for the state's hygienist to obtain this license. In 2002, one educational program in Southern California opened and graduated its first class of 17 the following year. Another 38 students completed the educational requirement in December 2004 via a web-based online program presented by the Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry. (Information about this program can be obtained at <http://www.pacificspecialcare.org>.) As of spring 2005, there are 84 licensed RDHAPs in California.

Requirements for practicing as an RDHAP under AB 560 include the following: completion of a minimum of 150 hours of additional educational requirements; completion of a bachelor's degree or equivalent from an accredited college or institution of higher education; verification of clinical practice as an RDH for at least 2,000 hours during the immediate preceding 36 months; and possession of a current California license as a dental hygienist. Collaboration with dentists in the community is part of this model, and documentation of proof of a relationship with a dentist for referral, consultation, and emergency services is required, along with a prescription from a dentist, physician, or surgeon.

Practice settings include schools, institutions, residential facilities, residences of the homebound and dental health professional shortage areas. Further legislation in California clarified the scope of practice of the RDH and RDHAP. SB 1589 specifies that

the RDHAP may practice in safety net organizations and public health entities, including public hospitals and tribal clinics. SB 2022 outlined the scope of practice for RDHs and included provisions for the RDHs to provide preventive services without supervision by the dentist in any public health clinic created or administered by local, county, state, or federal government entity.

One essential concern for the successful integration of alternative roles and practice is whether the state will directly reimburse hygienists under the Medicaid program. Often, statutory and regulatory language needs to be

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modified to allow this. States that have made some changes to allow Medicaid programs to directly reimburse are California, Colorado, Connecticut, Maine, Minnesota, Missouri (the provision sunsets in 2006), New Mexico, Nevada, Oregon, and Washington.¹⁶

International Access to Care Models: The Dental Nurse

Another strategy to address access to care issues is the development of a new category of dental provider, the dental nurse or dental therapist. The World Health Organization documented 42 countries with oral health providers similar to those of the New Zealand dental school nurse model. Common to the countries that developed the dental nurse model worldwide, is the problem of addressing access

to dental care given dental workforce shortages. The history, program parameters, and scope of practice of this type of provider, both internationally and in the United States, are reviewed.

New Zealand's School Dental Nurse Model

New Zealand's prioritization of oral health for a country of 4 million is remarkable. All children from the age 2½ (six months for children at high risk) through age 13 are eligible to participate in the school dental service and receive free comprehensive preventive and restorative care at the local school from the school dental therapist.¹⁷ Enrollment is not mandatory, yet 97 percent of school-age children participate.

Children with special needs, the other 3 percent not found in the school program, are directed to a special dental benefits program and are served by private practitioners. In 2003, there were nine licensed pediatric dentists in the country, eight of them working in the public sector with only one in private practice.¹⁸

The school dental nurse model began in 1921 with 30 students attending a two-year training program in Wellington. As employees of the federal health care system, they were educated to perform oral examinations; develop treatment plans; provide preventive services, including prophylaxis; administer local anesthesia; prepare and restore primary and young permanent teeth; and extract primary teeth. All care was given under the general supervision of a Ministry of Health dentist. In 1988, by a vote of the dental nurses, they changed the name to dental therapists. Today, they operate under the supervision of a principal dental officer of the district health board.¹⁹

To apply to one of the two dental therapy education programs in New Zealand, one must be a high school graduate with a passing grade in biology. The two-year curriculum is 32 weeks in duration, totaling 2,400 curriculum hours. About 760 hours of the 2,400-hour curriculum

are spent in a clinic treating children. Graduates entering New Zealand's School Dental Service must serve one year with another school dental therapist, similar to a mentoring program. In 1998, there were 569 school dental therapists in New Zealand caring for 497,000 school children in more than 2,000 schools. After age 17, government support for oral health care is limited to emergency care for pain and/or infection.

The dental therapist program and other public health measures in New Zealand produced a 69 percent reduction in children's treatment needs from 1975 to 1985. The decayed, missing and filled, and caries-free targets were met and further revised. At the same time, fluoride toothpastes became much more available, and 64 percent of the population had access to fluoridated water. In 1982, the percentage of caries-free 5-year-olds increased from 34 percent to 44 percent.²⁰

Canada's Dental Therapist

In territories in the northernmost region of Canada, dental care was virtually inaccessible. To address this health problem and to train aboriginal people to care for aboriginal people, a new pro-

vider category was developed.

In 1970, several Canadian dentists traveled to New Zealand to evaluate the dental nurse model. Based on common challenges and resources of the countries, they decided to develop a similar program in northern Canada. The Canadian model differed from the New Zealand model in several ways: It was to provide basic dental services to all residents of remote communities, not just children; there was a focus on children and schools, but it was not part of the school system; and emergency services were to be provided to people of all ages. Today, the basic dental services provided by dental therapists include oral diagnosis and examination, X-rays, fillings, extractions, stainless-steel crowns, fluoride treatments, sealants, and other preventive measures.²¹

Canada is the only country in the Western hemisphere to have a dental therapist educational program. The National School of Dental Therapy is a component of the First Nations University of Canada in Prince Albert, Saskatchewan. The school, which began in 1972, has the mission to train dental nurses (therapists)

in a two-year program to provide care for the remote First Nation (aboriginal Indians) and Inuit (Eskimos) villagers of the Canadian North.

The program is funded by Health Canada, First Nations, and the Inuit Health Branch. Tuition fees, course notes, dental equipment, and instruments are provided for the students. Living expenses and transportation are the responsibility of the student.²² Each year, the school accepts 20 students for the two-year curriculum running 40 weeks in length, with the second year devoted primarily to clinical care. The students receive approximately 1,600 clock hours in didactic Year One, followed by equivalent time in clinic for the total of 3,200 clock hours. To apply, the prerequisites are to be a high school graduate, and have taken an English and biology course, with a minimum passing mark of 70 percent.

The clinical services and work of the dental therapists in Canada has been compared to federal dentists in double-blind studies. Results have shown that restorations placed by dental therapists were equal to those placed by dentists.²³ Approximately 90 dental therapist are



currently employed by Health Canada to work on federal First Nation reserves throughout Canada. In Saskatchewan, it is estimated there are 208 licensed dental therapists.²⁴

Studies of the Dental Nurse Model in the United States

Some dental professionals in the United States, intrigued by the design and outcomes of the New Zealand model, proposed a similar model in America in the early 1970s, about the same time the province of Saskatchewan opened the dental nurse training program. In 1972, a proposal for a dental nurse was made in the United States. John Ingle, DDS, then-dean of the University of Southern California School of Dentistry, authorized a submission of a proposal for a training grant of \$3.9 million from the U.S. Public Health Service to train dental nurses to address the problem of caries among America's school children.²⁵

Social justice issues and advocacy for social change permeated the nation's culture in the early 1970s. Then-governor of California, Ronald Reagan, established a committee in 1972 to study the function of dental auxiliaries with the charge to make recommendations to the Legislature and the State Board of Dental Examiners. At the same time, the California Dental Association established a committee to study the New Zealand dental care system, analyze the relationship of the school dental nurse to private practice, and compare the New Zealand and California models.²⁶

The committee visited New Zealand in late 1972. Its report, published the next year, stated, "There is little doubt that dental treatment needs related to caries for most of the children age 2½ to 15 have been met. However, the authors concluded that the public would 'probably not' accept the New Zealand school dental program as it would be perceived as a 'second-class'

system."²⁷ The issue reached nationwide discourse with articles appearing in the professional journals of the American Dental Association and the American Association of Dental Schools. The USC grant was not funded.²⁷

Throughout the 1960s and 1970s, the debate on access to care and utilization of allied dental professionals continued. Additional studies were designed and conducted in the United States, with one of the more publicized being the Forsyth Experiment as it was initiated at the Forsyth Dental Center. Forsyth researchers conducted a "dental nurse" project designed to educate dental hygienists in restorative procedures for children. Between 1970 and 1973, the Forsyth project continued. In June 1974, the Forsyth project was closed due to political pressure. However, with almost four years of experience and data, a book was published, *The Forsyth Experiment*.²⁸

The Forsyth project had similar results to the Kentucky and Iowa projects.²⁹ All of these projects indicated that dental hygienists, in a relatively brief time, could perform the designated restorative procedures with comparable quality levels.³⁰ Additional "dental nurse" pilot projects were implemented at the University of Kentucky from 1972 to 1974, supported by the Robert Wood Johnson Foundation.³¹ Also, the College of Dentistry at the University of Iowa conducted a five-year project starting in 1971, supported by the W.K. Kellogg Foundation. That project evaluated hygienists performing restorative dentistry and periodontal therapy for both children and adults.

Benefits of Expanding the Oral Health Workforce

Pilot studies have shown the collaborative practice provider models to be safe and effective, and these practices have been successful in reaching underserved populations.³² Two strategic advantages of dental therapist and "collaborative practice" provider is the

ability to provide services in alternative organizational structures, and to integrate oral health into primary health settings. For example, in nursing homes in California, the RDHAP provides triage, preventive services, and referral for treatment. The RDHAP provider is a liaison between the facility nurses and staff and the dentists in the community. Each cohort of the 17 RDHAP graduates from the West Los Angeles program is estimated to add 34,000 patient visits per year for the underserved.³³ Most strategies to address barriers to care call for collaborative efforts such as these, as no single profession or setting can tackle the access to care issue alone.

Conclusion

As we move into the 21st century, solutions to the nation's oral health problems will demand innovations and leadership unlike that in the past. The multitude of health challenges and workforce issues facing this state and this nation, combined with the federal deficit and state budget issues, require it. Maintaining and expanding an adequate oral health workforce in size, ethnicity, and linguistic competence to meet the oral health needs of the public is critical, particularly if the dental community is to address the oral health problems of people with special needs.

For California, the development of alternative roles and practice settings for dental professionals, combined with integrating oral services into related medical, rehabilitative and social service programs, are essential components of the solution to address access to care. The public expects the key stakeholders — the dental and dental hygiene professions, the dental and allied health educators, the dental public health sector, existing oral health practitioners in the community, plus legislators, governmental programs, and consumer groups — to collaborate in order to improve oral health for people with special needs.

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