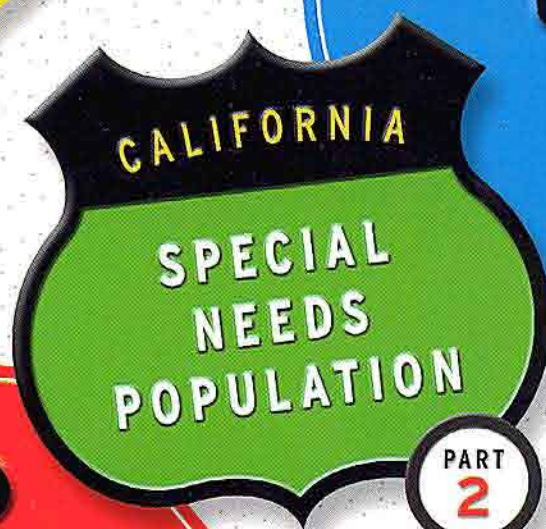


CDA

Education
Financing
Implications

JOURNAL OF THE CALIFORNIA DENTAL ASSOCIATION VOL.33 NO.9

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Paul Glassman,
DDS, MA, MBA



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Less Is Not More

German architect Ludwig Mies van der Rohe was known for his philosophy of “less is more” in his designs. He attempted to create neutral spaces based on both material openness and structural integrity with simplicity of form that defined a place in the history of architecture. But in life, less is not always more.

In an earlier column, the concept of the Alaska dental health aide therapist was mentioned as a means to provide access to care for the Alaska native population that is geographically removed from traditional types of care. This merits further exploration in consideration of the far-reaching implications of this project.

These therapists would be high school graduates who would receive 18 to 24 months of training in dentistry; although it is rumored the programs are expected to increase to 36 months in the future. After the completion of their formal education, they will be assigned to dentists for supervised practice in the form of preceptorship, after which they will be sent out to remote areas of the state to provide primary dental care under general supervision. Their responsibilities include treating the natives with irreversible and invasive procedures, including fillings, stainless-steel crowns and simple extractions. One can only imagine the potential for damage that could occur in a difficult restoration where the caries is unexpectedly difficult to remove, but this problem pales compared to the surgical procedure of removing a decayed tooth that no longer defines itself as a simple extraction. Postoperative complications from either of

these procedures can be dreadful.

The justification for this radical idea lies in the relatively large number of Alaska natives in remote areas of the state forced to go without dental care. Couple this with the increasing consumption of carbonated sugar-based beverages and generalized poor dietary habits, and one can understand the significance of the problem and the potential for greater need further down the line. The rationale for the dental health aide programs (which include preventive therapists as well, a concept that is good) is that the culture will allow local people to be more effective in caring for their own.

The American Dental Association has taken a strong stand on the therapist program and reinforces the idea that only dentists should provide invasive dental care to ensure the quality of service and proper patient management. As an alternative, the ADA has proposed Operation Backlog, a program designed to provide care to this “at-risk” population by dentists from Alaska and other states. The program would develop a pool of individuals willing to go to these areas and assist patients. Supplementing the professionals would be a cadre of dental health aides — a program already in the works — to provide both education and noninvasive care.

Some contend that family practice physicians and pediatricians can provide minimal levels of dental care to pediatric patients. It has been reported at a recent ADA meeting that only 9 percent of pediatricians understand the issues of oral health. This disappointing statistic



The American Dental Association has taken a strong stand on the therapist program and reinforces the idea that only dentists should provide invasive dental care to ensure the quality of service and proper patient management.

supports the need for a combination of increased care for children by dentists and increased oral health education for our physician colleagues. Family practice physicians and pediatricians are capable of educating their patients on diet, the destructive nature of baby bottle caries, and the need for fluoride. They are not educated in, and (one would surmise) have little interest in, placing sealants or doing dental procedures. The ability to evaluate patients and make appropriate referrals will go a long way to improving the dental health of this population.

The problem of access to care for these natives is real, and the need is increasing at alarming rates. Solutions are needed, but the safety of patients must not be compromised. Some argue that any care is better than no care at all, but it must be remembered that the first rule of medicine is to do no harm to your patient. That it is the minimally trained therapist versus no care at all is a specious argument.

We cannot allow or support the provision of invasive, irreversible, and potentially dangerous treatment by other than well-educated dentists. To do so decreases the quality of care and increases the risks of disaster. Even in remote areas, everyone deserves equally trained medical attention. Provision of dental care by nondentists is diametrically opposed to all that we stand for, and must never be the standard, even for isolated subsets of our population. **CDA**

Comments, letters and questions can be addressed to the editor at alan.felsenfeld@cda.org.



Photo: Mercy Ships International

Creating Smiles in West Africa

By offering free dental clinics to treat and educate residents, Mercy Ships is hoping to sink the occurrence of dental disease in West Africa. Additionally, Mercy Ships is partnering with local residents to train them in good oral health practices.

Most people in the West African nation of Benin can't afford basic dental treatments. And if they could, most wouldn't have access to a dentist: There are only 52 dentists in a country of 7 million people.

"When I heard of the ship with dentists, I was so happy and overwhelmed,"

**"WHEN I
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HAPPY
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JOCELYN AHOHNMENOU

Volunteers with Mercy Ships assist in a range of areas such as dental and medical care, relief aid, and training for long-term, positive changes in developing countries.



said Jocelyn Ahounmenou. She waited three days in line with her daughter Débora to see a dentist. Neither of them had ever had a dental check-up. Like so many others in Benin, they live with oral pain daily and no way to end it. Ahounmenou had difficulty with caries while her daughter struggled with losing her baby teeth.

Mercy Ships, which operates a fleet of hospital ships, provides free medical care to West African nations. While dental teams set up clinics in town, surgeons perform life-changing operations onboard.

Pre-screened patients arrived at the dental clinic every day with appointment cards in hand. Others waited in line — sometimes for days — hoping for a chance to see a dentist. Dominique Vonnez, Mercy Ships' dental coordinator screened the waiting people, offering appointments and hope. After three days of waiting, it finally was Jocelyn and Débora's turn. They received an appointment card to see a dentist.

"To see the people who have had so much pain for so long to finally get help ... I have people who come and they have infection coming out of their cheeks, they have swellings that have been there for months, they have been in pain for weeks," Vonnez recalled. "And for us to be able to say 'Come in, we can help you today and end that agony,' for me, there's a lot of fulfillment and joy in doing what I do here."

Benin native Martin Dannoume talked



Dental health professionals have helped rebuild smiles in Africa.

about dental hygiene and nutrition as the patients waited in line. Four years ago, he served as a health teacher and translator when a Mercy Ship visited his country. After working with Mercy Ships dentists, he was inspired to assist the poor in his country. He now is training as a dental assistant. "I still continue to teach in schools and churches, but then I have a different plan now, like trying to go to school for dentistry."

Dannoume assisted a Mercy Ships dentist treating Ahounmenou and her daughter Débora. It took only a few moments to resolve months of frustration and mouth pain. The women left grateful for the care they received. Poverty keeps many West Africans from accessing the help they need, but through education and treatment, Mercy Ships is seeking to remedy this problem.

Mercy Ships, the leader in using a fleet of hospital ships to deliver free, world-class health care services to the poor, was founded in 1978. More than 2,400 career and short-term volunteers serve with Mercy Ships each year. Mercy Ships has three hospital ships and offices in 17 countries, and has visited more than 500 ports in 50-plus developing nations. Mercy Ships has performed more than 2 million services, valued at \$250 million.

For more information, visit online www.mercyships.org.

Agreement Reached on Medi-Cal Hospital Program

California Gov. Arnold Schwarzenegger and Mike Leavitt, U.S. Health and Human Services secretary, reached an agreement on a series of reforms and a waiver, Safety Net Care Pool, to stabilize public hospitals and bring preventive coordinated health care to beneficiaries in its Medi-Cal program. It also allows the state to expand its health coverage to more than 100,000 people currently uninsured.

"Governor Schwarzenegger and I want to strengthen the health care system in California. This waiver will do that by helping the state cover more people at a lower cost, by moving them from more expensive hospital settings to programs that offer real benefits and a choice of services," Leavitt said.

This agreement helps stabilize the state's safety net hospitals while moving forward on the governor's Medi-Cal redesign to enroll more beneficiaries into managed care. Additionally, the agreement provides for \$540 million in federal

funds over three years for a new coverage initiative to be developed to decrease the number of individuals who are uninsured.

The agreement allows California to secure Medicaid revenues, helping the state's public hospitals handle uncompensated care. As part of the agreement, the Golden State also will make some health care financing reforms to assure appropriate financing in the state-federal partnership.

"I want to thank Secretary Leavitt and his staff for their work with my administration over the past year to bring this necessary federal funding to California," said Schwarzenegger. "This waiver advances our common goal of stabilizing and supporting the state's safety net, while at the same time making progress toward achieving important reforms in our health care delivery system."



PET Scan Is Perfect for Assessing Oral Cancer

Since positron emission tomography scanning lets health professionals assess changes in tissue before other diagnostic images can reveal them, it can improve the way cancer patients are managed, wrote Luis Tamara, MD, Claudia Tamara, DDS, and Ines Velez, DDS, in the May 2005 issue of *Today's FDA*, the Florida Dental Association's journal.

"PET permits assessment of chemical and physiological tissue changes and shows areas of increased uptake in tumor cells, even before they appear as a mass," the authors stated. "PET, therefore, may demonstrate pathological changes long before other diagnostic images would reveal them."

The PET scan allows differentiation between malignant and benign tumors, and may help distinguish between necrosis, scar tissue, tumor recurrence and metastatic disease, the authors said. It also permits the assessment of a patient's progress during therapy, making it possible to identify patients not responding to treatment.

Comments Sought for Data Model

The American Dental Association Standards Committee on Dental Informatics has approved for circulation and comment the proposed American National Standard Institute/ADA Specification No. 1039 for a standard clinical conceptual data model. The goal of the document is to develop and present an understanding of the structure and content of data required to support health care processes.

The proposed specification is the first revision of the 1996 ADA computer-based oral health record concept model, which was utilized as the basis for the development of the ANSI/ADA Specification No. 1000 for standard clinical data architecture for the structure and content of an electronic health record.

Copies of the specification are available by sending an e-mail request to: standards@ada.org or calling the ADA, (800) 621-8099, Ext. 2533.



However, of course, the ultimate decision is up to the dental professional, the patient, and the patient's guardian. Fehrenbach also pointed out that for teens with tetracycline or dental fluorosis, whitening can be a social lifesaver.

Tooth-Whitening OK for Pre-teens

It has been demonstrated that it is safe for children as young as 12 to use whiteners. According to the spring 2005 issue of *Journal of the Indiana Dental Association*, a number of dentists are comfortable using whiteners on patients who are 14-years-old, when each tooth pulp is fully formed.

Additionally, the author, Margaret Fehrenbach, wrote it has been safe for children as young as 12 to use at-home whitening products.

Disaster Response Fund, Phase II

To assist the countries devastated by the Dec. 26 tsunami, the American Dental Association and the ADA Foundation are coordinating long-term rebuilding efforts and dental outreach, along with the FDI World Dental Federation as well as national dental organizations.

The disaster response fund will be utilized to work with the relief organizations, national dental organizations, and others in the affected countries to pay for repairing or rebuilding damaged dental hospitals, clinics, and schools.

The ADA Foundation, the ADA, its staff, members, and friends responded with more than \$300,000 for disaster assistance following the tsunami that killed, injured, and displaced thousands of people. With the extent of the damage more apparent now, the urgency for additional response has emerged.

Specific rebuilding and outreach recommendations are being evaluated. The communities are in clear need of supplies and equipment for dental outreach in the short term, and are in need of assistance to rebuild damaged or destroyed dental facilities.

The ADA and the ADA Foundation



are encouraging donations for its disaster response fund. To donate, download and complete the form located in the ADA Foundation content area of ADA.org, and return it to: ADA Foundation, 211 E. Chicago Av., Chicago, Ill., 60611. Checks may be made payable to ADA Foundation or donors may use their Visa, MasterCard or American Express.

For additional information, contact Dwight Edwards, ADA Foundation's director of development, at edwardsd@ada.org or (312) 440-4717.

Online Scam Alert Issued

An online organization allegedly issuing bogus invoices to dental offices in Florida has prompted that state's dental association to issue a warning to its members. In the April issue of *Today's FDA*, dentists received erroneous bills from Dentists.org for Internet ads they did not order.

While the problem has only been reported in Florida, it is prudent to keep the front office apprised of advertising purchases and to staff to question bills from web-based companies, especially in these days of Internet scams and spam.



Illustration: Charlie O. Hayward

Honors



Students at the Arizona School of Dentistry and Oral Health, A.T. Still University of Health Sciences, presented their 2005 Faculty of the Year Award to **A. Jeffrey Wood, DDS**, associate professor and chair of the Department of Pediatric Dentistry at the University of the Pacific, Arthur A. Dugoni School of Medicine.



Richard K. Rounsaville, DDS, was installed as president of the Academy of Osseointegration during the organization's recent annual business meeting in Florida. Also elected to the board of directors was Russell D. Nishimura, DDS.

Upcoming Meetings

2005

Sept. 9-11	CDA Fall Session, San Francisco, (866) CDA-MEMBER (232-6362).
Sept. 25-28	Pacific Coast Society of Orthodontists/Rocky Mountain Society of Orthodontists Joint Annual Session, San Diego, www.pscortho.org .
Oct. 6-9	ADA Annual Session, Philadelphia, (312) 440-2500.
Oct. 29-30	California Association of Oral and Maxillofacial Surgeons' Fall Membership Meeting, San Francisco, www.calaoms.org ; (800) 500-1332.
Nov. 4-6	Second International Conference on Evidence-Based Dentistry, Chicago, www.icebd.org .

2006

March 15-18	Academy of Laser Dentistry, Tucson, www.laserdentistry.org .
April 27-30	CDA Spring Session, Anaheim, (866) CDA-MEMBER (232-6362).
Sept. 15-17	CDA Fall Session, San Francisco, (866) CDA-MEMBER (232-6362).
Oct. 16-19	ADA Annual Session, Las Vegas, (312) 440-2500.
Dec. 3-6	International Workshop of the International Cleft Lip and Palate Foundation, Chennai, India, (91) 44-24331696.

To have an event included on this list of nonprofit association meetings, please send the information to Upcoming Meetings, *CDA Journal*, 1201 K St., 16th Floor, Sacramento, CA 95814 or fax the information to (916) 554-5962.

Oral Health for People With Special Needs

Paul Glassman, DDS, MA, MBA

This is the second issue of the *Journal* devoted to the proceedings of a conference sponsored by the Pacific Center for Special Care at the University of the Pacific School of Dentistry and hosted by the California Dental Association Foundation in November 2003. The subject of the conference was the dramatic increase in the number of people with special needs needing oral health services and the increasing difficulty these groups and individuals are having accessing these services.

Last month's issue contained a consensus statement developed by an expert panel at the conference with recommendations for addressing barriers to good oral health that are experienced by people with special needs. The issue also contained background papers on new models for improving oral health for people with special needs, state and national health policy considerations, and alternate financing models for oral health services for currently underserved populations.

In this issue, additional background papers from the conference are included on implications for private practitioners, the role of safety net providers and alternate health providers, and considerations for educating dental professionals to care



for special needs populations. In addition, a paper has been included on the financial implications of a national cost-effective program to finance oral health services for low-income individuals who are aged, blind, and disabled.

We hope these two issues, and the ideas and recommendations contained in them, will raise awareness inside and outside the profession about the critical and growing difficulty of maintaining oral health for people with special needs. The profession must be concerned about this situation. We must develop coalitions and partnerships with those many individuals and groups who care about these problems, and be at the forefront of proposing solutions and advocating for their adoption. Doing so will demonstrate our leadership and commitment to achieving good oral health for everyone in our society, including our most vulnerable citizens. **CDA**



Guest editor / Paul Glassman, DDS, MA, MBA, is professor of Dental Practice, associate dean for Information and Educational Technology, and director of the Advanced Education in General Dentistry Program at the University of the Pacific Arthur A. Dugoni School of Dentistry.



Older Adults – Implications for Private Dental Practitioners

Linda C. Niessen, DMD, MPH, and Denise J. Fedele, DMD, MEd

Abstract

Currently, 35 million people are over the age of 65 in the United States. This number is expected to double to 70 million by 2030 (**Figure 1**). In California, 3.7 million people are over the age of 65, and this number is expected to increase to 6.4 million in the next 20 years or within the practice lifetime of students presently enrolled in California's dental hygiene and dental schools. The oldest old, those over age 85, are the fastest-growing segment of the United States and California's population. California's aging population will reflect the diversity of the state in general. **Table 1** lists California's 65-plus population by age and ethnic/racial categories.

By 2030, one in five Americans and Californians will be 65 years or older. Women who reach age 65 can expect to live an additional 19 years of life, while men can expect to live an additional 16 years. The gap in life expectancy between men and women is narrowing due to improvements in medical care, preventive health services, and healthier lifestyles. **Figures 2-4** show the improvements in life expectancy at birth, age 65, and age 75 for the U.S. population.

In the United States, there are an estimated 1.8 million nursing home beds used by 80 percent of the residents over age 65. A report by the U.S. General Accounting Office estimated that 43 percent of all Americans over age 65 will reside in a nursing home at some time in their life. California currently has approximately 100,000 residents living in one of the 1,503 nursing home facilities throughout the state. Nursing home care in California accounts for \$5.6 billion. In 1998, the U.S. General Accounting Office reported that one in three California nursing homes was cited for serious or potentially life-threatening care problems.

With an aging imperative in California, this paper will discuss the implications of an aging society on maintaining oral health throughout one's life, and the ability of dental professionals to meet the oral health needs of this population.



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Denise J. Fedele, DMD, MEd, is chief, Professional Development, Research and Dental Care, VA Maryland Health Care System, Perry Point, Md.

Unlike previous cohorts of elders, today's adults over the age of 65 and the baby boomers who follow them are equating health and wellness with good oral health. The baby boom generation, those born between 1946 and 1964, was the first to benefit from widespread community water fluoridation and fluoride in toothpastes and mouthrinses. As a result, they have retained more natural teeth and maintained higher levels of oral health than their previous cohorts. Current elders also expect to take advantage of modern dental treatments like whitening, and are expressing an increased interest not only in maintaining their oral health and preventing oral diseases, but also improving oral/dental/facial esthetics.¹

While the baby boom generation is expected to receive significant wealth transferred from their World War II generation parents, disparities exist among seniors in terms of economics, health, and expectations.²

Table 1

California's 65-Plus Population by Age and Racial Background

Age in years	Total population	% Asian	% Black	% Hispanic	% White
65-74	1,887,823	11.2	5.5	15.7	65.3
75-84	1,282,178	8.7	4.5	10.8	74.2
85+	425,657	6.6	4.4	9.1	78.2

Reference: www.dof.ca.gov (Accessed July 6, 2005.)

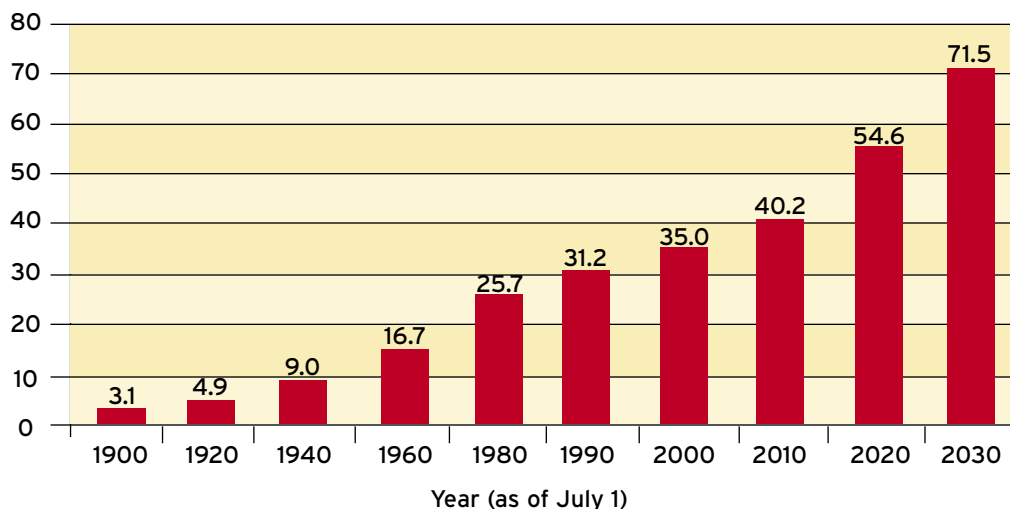
Chronic Diseases and Patient Assessment

With increased age comes increased chronic disease. More than half of older adults report at least one physical or nonphysical disability. Disability is more severe in the very old, and the presence of a severe disability is associated with lower education and income. Arthritis occurs in half of older persons with hypertension, hearing impairments, and heart disease occurring in approximately one-third of older persons. Most older adults have at least one chronic condition and many

have multiple conditions. Table 2 lists the common chronic diseases in older adults. Disability from chronic disease can increase an older adult's risk for oral diseases. Table 3 lists the causes of death in adults over the age of 65.

Research on periodontal disease continues to demonstrate linkages between periodontal disease and cardiovascular disease, and periodontal disease and stroke.^{3,4} Treating periodontal disease has been shown to improve the metabolic management of poorly controlled diabetics.⁵

Number of Persons Over 65, 1900-2030



Reference: www.aaa.gov

Figure 1. Number of persons 65+, 1900-2030 (numbers in millions).

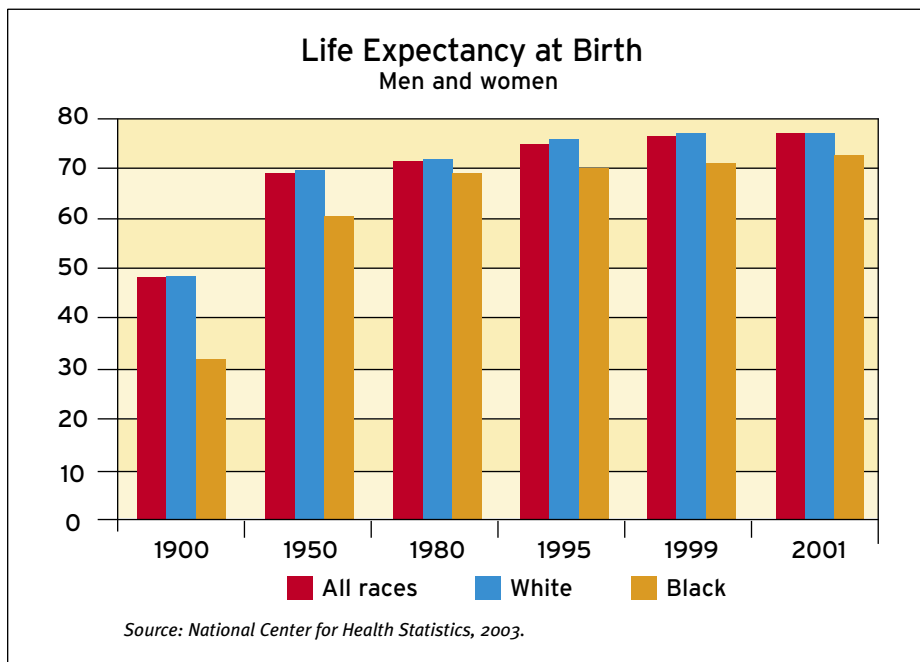


Figure 2. Changes in life expectancy at birth from 1900-2001.

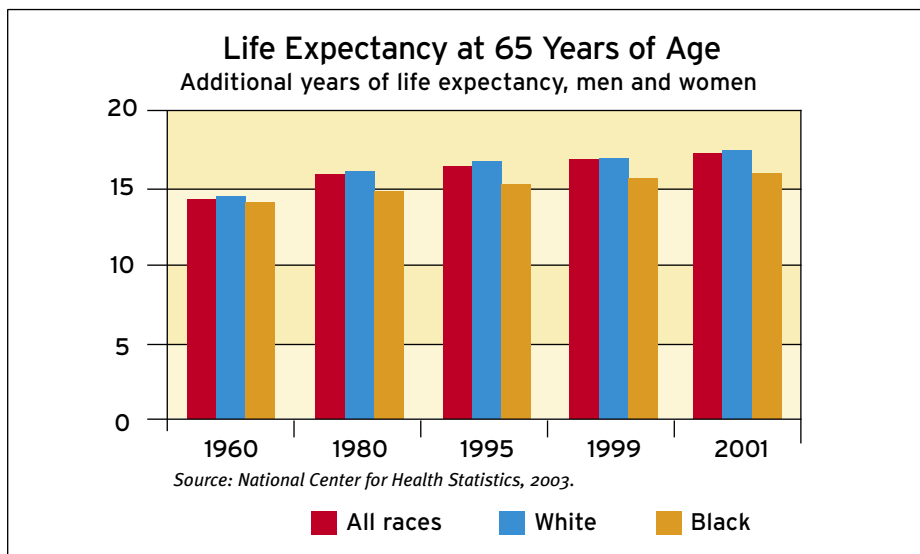


Figure 3. Changes in life expectancy at age 65 from 1960-2001.

Evidence on the relationship between oral diseases and systemic health continues to strengthen. A recent study showed that periodontal pathogens were linked to increasing carotid intima-media thickness.⁶ Researchers at

the University of Buffalo studied elderly nursing home residents and found that those who had certain bacteria in dental plaque were at increased risk for developing pneumonia.⁷ This study suggested that dental plaque may serve

as a reservoir for respiratory pathogens. As a result, oral hygiene care for institutionalized elders may not only improve oral health, but also decrease their risk for pneumonia.

Older adults frequently take multiple prescriptions and over-the-counter medications. Medications such as antidepressants, antihistamines, antihypertensives, and diuretics are most often associated with a decrease in salivary flow.⁸ More than 500 medications are known to induce xerostomia or dry mouth. Reduced salivary flow compromises the ability to chew, speak, taste, and swallow, and increases the risk for dental caries, periodontal diseases, and soft-tissue trauma.

Oral candidiasis may occur with long-term use of antibiotics, steroid therapy, or chemotherapy. Other medical conditions that compromise the immune system such as diabetes mellitus, head and neck radiation therapy, and human immunodeficiency virus infection place the patient at risk for candidiasis.⁹ A number of medications frequently prescribed to older adults can alter the gingival tissue. Gingival overgrowth can be induced by medications such as anticonvulsants (phenytoin), cyclosporines, and calcium channel blockers such as nifedipine, in the presence of poor oral hygiene, further complicating the ability to maintain good oral hygiene. Fluctuating female hormones during menopause may affect the gingival tissue and periodontal status.¹⁰

Obtaining a complete history may take longer with older adults who have various chronic diseases and are taking multiple medications. Dental professionals must become comfortable with the medical aspect of a patient's oral health care. Dialogue between the clinician and the patient often yields valuable information and builds a relationship. A comprehensive medical review includes an evaluation of systemic diseases and

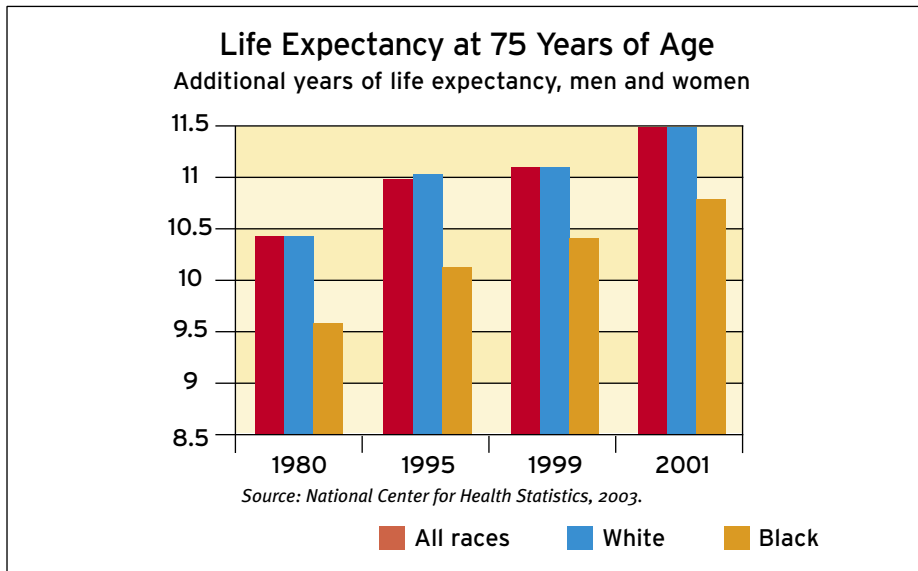


Figure 4. Changes in life expectancy at age 75 from 1960-2001.

Table 2 Common Chronic Diseases in Older Adults Most frequently occurring conditions of elderly 2000-2001, by percent	
Condition	Percent
Hypertension	49
Arthritis	36
Heart disease	31
Cancer	20
Sinusitis	15
Diabetes	15

Reference: www.aaa.gov

conditions that can affect oral disease susceptibility. Past hospitalizations can reveal a history of serious illnesses and provide the opportunity to evaluate long-term consequences of these illnesses. Consultation with the patient's physician occurs far more frequently with older adults and individuals with complex medical problems prior to routine dental care, not to mention when invasive procedures are planned.

Ambulation in the reception and operatory areas allows an opportunity to observe the patient for physical limita-

tions and signs of underlying disease. A patient's appearance, weight, and posture are often indicators of general health. For example, impaired vision, dementia, or arthritis can have a profound effect on oral hygiene, with dementia and arthritis impeding routine self-care procedures, indicating the need for modification. Patients with diabetes must understand that their diabetes places them at risk for periodontal disease.

Additional information about family status, social support system, economics, housing, living arrangements,

and access to transportation are important since these lifestyle factors may play a role in the patient's ability to access needed oral health care. For nursing home residents, obtaining needed dental care may be even more difficult given that most facilities don't have dental operatories on site to provide dental care.

Oral Health Status in Older Adults

Dental Caries

Until recently, dental caries was considered a childhood disease. Data currently demonstrates decreased caries prevalence among school-age children and an increased prevalence of coronal caries through the fifth decade of life.¹¹ Older adults present with the greatest increase in the number of teeth at risk for caries. Estimates show that by 2030, the number of teeth at risk in 45- to 64-year-olds will increase by 73 percent; and the 65- to 84-year-old group by 104 percent.¹²

Root caries occurs more frequently in older adults. National survey data shows that 47 percent of individuals age 65 to 74, and 56 percent of individuals 75 years and older, have decayed or filled root surfaces.¹¹ Risk factors for root caries are dry mouth (Table 4), poor oral hygiene, exposed root surfaces (gingival recession), cognitive or physical deficits, elevated numbers of cariogenic bacteria, a high carbohydrate diet, and partial dentures.

Studies on nursing home residents has shown poor levels of oral hygiene and increased root caries in this population. Anecdotal reports suggest a patient can be admitted to a nursing home with intact dentition, only to have the patient succumb to root caries in a relatively short period of time, e.g. six to nine months. Others suggest that with patients remaining in their homes longer prior to nursing home admission, patients may enter the nursing home

Table 3**Causes of Death in 65-Plus in 1980 and 2001**

Leading causes of death 65 years and older, United States

Rank	1980	2001
1	Heart disease	Heart disease
2	Malignant neoplasm	Malignant neoplasm
3	Cerebrovascular disease	Cerebrovascular disease
4	Pneumonia and influenza	Chronic respiratory disease
5	COPD	Pneumonia and influenza
6	Arteriosclerosis	Diabetes mellitus
7	Diabetes mellitus	Alzheimer's disease
8	Unintentional injuries	Kidney disease
9	Kidney disease	Unintentional injuries
10	Liver disease and cirrhosis	Septicemia

Source: National Center for Health Statistics, 2003.

Table 4**Medical Conditions or Disorders Associated With Dry Mouth**

Medication use
Radiation treatment for head and neck cancer
Sjögrens syndrome
Bone marrow transplant
Thyroid disorder
Depression
Diabetes

Source: Fox, PC. Management of dry mouth. Dent Clin North Am, 1997.

with considerable unmet dental problems. Research is needed to understand the oral health status of patients as they enter the nursing home and the changes that occur during their residence in the nursing home. If a decubitus ulcer in a nursing home resident triggers a quality assurance audit, why doesn't a mouth full of root caries during one's nursing home admission trigger the same type of quality assurance audit?

Periodontal Disease

Advanced periodontal disease is less prevalent than moderate disease in older adults.¹³ Little evidence exists that the risk factors for periodontal disease in older adults are different than the risk for factors for younger people. Systemic disease, medications, and depression can contribute to modifying risk factors of periodontal disease with age. Regardless of age, periodontal disease

may progress faster and the response to its treatment may be slower in smokers than nonsmokers.¹⁴ In addition, periodontal disease in older adults is most likely the result of disease accumulation and effects over time, not the occurrence of new disease in later life.¹⁵

For the nursing home population, oral hygiene programs must be developed to assist residents who, because of physical or mental infirmities, are unable to perform oral self-care. Dental professionals have the opportunity to share their oral health knowledge with caregivers, nurses, and nurses aides in long-term care facilities to improve the oral health of the residents. One study that provided a professionally administered oral hygiene program to long-term care residents resulted in the reduction of the occurrence of fever and death due to pneumonia.¹⁶

Oral Cancer

It is estimated oral and pharyngeal cancer accounted for 28,900 new cases and 7,400 deaths in the 2002 in the United States.¹⁷ Oral and pharyngeal cancer increases with advanced age, with most occurring after age 40. Men are diagnosed with the disease twice as often as women. Data suggests the sex gap is slowly narrowing.¹⁸ Research indicated that several factors are associated with increased risk for oral and pharyngeal cancers. However, some people who develop oral cancer have no known risk factors, while others, who do not develop the disease, have multiple risk factors.

Tobacco and alcohol use are the major risk factors for oral and pharyngeal cancers. Approximately 90 percent of people with oral and pharyngeal cancers use tobacco. All forms of tobacco, including smokeless/chewing, cigars, and pipes increase the risk for the disease.¹⁴ Smokers are up to six times more likely than nonsmokers to develop oral cancers.¹⁹ Also, about one-third of

Table 5
Preventing Oral and Pharyngeal Cancer
Limit/quit alcohol intake
Limit/quit tobacco use
Avoid midday sun
Wear a wide brim hat
Use sunscreen
Eat a healthy diet
<i>Reference: www.cancer.org. Accessed July 6, 2005.</i>

Table 6
Categories of Recommendations to Improve Oral Health for Special Needs Populations
■ Education in medicine, medications, and complex dental skills
■ Office environment modifications
■ New models of delivery of dental care
■ Reimbursement rates for oral health services
■ Clinical research
■ Development and implementation of preventive protocols
■ New practitioners to provide primary oral health care

people who continue to smoke after successful treatment of their cancer develop second cancers of the oral, pharynx, or larynx (compared to 6 percent who stop smoking). In addition, people who frequently drink alcohol are six times more likely to have oral cancer than those who do not consume alcohol. More than 75 percent of oral and pharyngeal cancers are associated with alcohol use.

Ultraviolet light is a significant risk factor for lip cancer. The incidence of lip cancer is decreasing in the United States.¹⁸ One-third of people with lip cancer have occupations with significant sun exposure. Also, vitamin A deficiency, Plummer-Vinson syndrome, and human papillomavirus infection have also been suggested as possible risk factors for oral cancer. Other factors

that increase risk for oral cancer include organ transplantation and subsequent long-term immunosuppression.²⁰

Alcohol and tobacco work together to damage the cells of the mouth. **Table 5** shows habits that could prevent or minimize the risk for oral and pharyngeal cancer. Eliminating tobacco or alcohol consumption, even after many years of use, lowers the risk for disease. Although great strides have been made to improve the prognosis of several cancers, the prognosis for oral and pharyngeal cancer has not improved.¹⁷

Implications for Private Practitioners

As a result of the changing demographics, several implications for private practitioners are proposed. **Table**

6 lists these recommendations by category with the additional following descriptions.

Education in Medicine, Medications, and Complex Clinical Dental Skills

Demographics demand that dental practitioners be prepared to care for an increasing number of special care individuals. This population will require dental professionals to be comfortable caring for patients with more chronic illnesses and who take multiple medications. The medical laboratory may be used as frequently in the future as the dental prosthetic laboratory. A patient recovering from a stroke and taking anticoagulants will require the medical laboratory to determine the international normalization ratio to check bleeding status prior to scaling and root planing or a surgical procedure. The medical history will take longer, and future care for older adults may require taking vital signs (blood pressure, pulse, respirations) and perhaps other primary care preventive services like screening for diabetes, inquiring about flu shots, etc. The dental office of the future may even employ a nurse practitioner to provide these primary care services.

Dental schools may need to establish both long- and short-term training programs in geriatric dentistry and/or special needs dentistry. Perhaps the second year of a general practice residency could be dedicated to special populations, such as caring for older adults in acute or long-term care facilities. Currently, the U.S. Department of Health and Human Services fund several geriatric medicine and dentistry fellowship programs. These two-year training programs enhance the medical knowledge and clinical skills of physicians and dentists. The physicians and dentists work together learning a team approach to geriatric patient care. It is hoped that graduates of these programs will pursue academic careers and

Table 7**Nursing Home Ownership, Reimbursement and U.S. Elderly Population Over Age 65**

Nursing home ownership	NH reimbursement	U.S. elderly population (% of total U.S. population)	
66% for profit	8% Medicare	65-74	18,759,000 (7%)
27% not for profit	68% Medicaid	75-84	11,145,000 (4%)
7% government	23% private pay	85+	3,625,000 (1%)
Reference: www.state.ca.gov			

serve as faculty members in medical and dental schools role modeling this collaborative behavior.

Short-term programs or “mini-residencies” similar to those developed by the University of Minnesota would enable practitioners to enhance their medical skills in a shorter time. These short-term programs on site at special care facilities can provide more simulation-based experiences.

Dental Office Environment

With the aging of the population, the dental environment may need to be modified. The reception area should include a few firm chairs that are easy to sit in and rise from. While soft, plush living room-type furnishings appear lovely, they are often difficult for older adults to sit in and even more difficult to get up from.

The dental office should be evaluated for wheelchair accessibility as individuals who use wheelchairs have difficulty negotiating corners. Ensure that space in the reception area accommodates a wheelchair without having to move furniture. One should also consider an operatory that is larger than usual, and equipping the operatory with the dental chair on an air bladder that can be moved out of the way should one need to treat a patient who arrives in a litter or a wheelchair and cannot be transferred, like a spinal cord injury patient. A headrest can be attached to the wheelchair and the patient treated

in the wheelchair. Similarly, patients arriving in a “geri-chair” can be treated in that chair since it provides head support for the patient. Recognize that the litter or geri-chair will require more space in the dental operatory than a conventional wheelchair. The dental team should work with physical therapists to learn how to transfer patients safely so the patient and the staff don’t risk an injury. To the extent possible, the dental team may wish to encourage the patient to come to the dental office with an aide who is familiar with transferring the individual.

Access to Oral Health Care

The surgeon general’s report called attention to the growing problem of access to oral health care for special needs patients.²¹ Increasing access to oral health care services for older adults has been called a “looming crisis.”²² For many older adults, finances may not be the only issue. For the medically compromised in a nursing home, even those with resources, they may have difficulty accessing oral health services. Many volunteer programs exist to help meet the oral health needs of underserved individuals, but as James Bramson, DDS, executive director of the American Dental Association noted, “Volunteerism is not a delivery system.”

New models for oral health care delivery need to be developed. **Table 7** lists the percentage of nursing homes by

ownership, reimbursement sources and the U.S. elderly population. Currently, individuals in nursing homes have very limited, if any, access to needed oral health care. Dentists are initiating portable dental practices where the dentists use portable equipment and provide care in the patient’s home.

Similarly, dentists are developing nursing home-based dental practices where they contract with the facilities to provide dental care to their residents, usually on a fee-for-service basis. Private corporate entities also are developing to contract with nursing homes to provide dental care for nursing home residents.

Baby boom children evaluating nursing homes for their aging parents should ask if the nursing home has a dentist on staff. CMS-reimbursed nursing homes are required to complete a minimum data set assessment on each patient within 14 days of admission. The minimum data set includes six questions on oral health. These questions are completed by nurses who have little training in differentiating healthy vs. diseased oral tissues. If a problem is identified on the oral health section of the minimum data set, the nursing home is responsible for providing a resolution to this problem.

Reimbursement Rates

Reimbursement plans and rates for dental services need to be re-evaluated. For the baby boom population,

who has had workplace-related dental insurance, when they retire and switch their health insurance to Medicare, they will lose their dental insurance. Dental office managers will become the bearer of this bad news.

Some have advocated extending dental insurance through retirement for more than 20 years.²³ In September 2004, Judith Jones, DDS, MPH, of Boston University convened an "Elder's Oral Health Summit" to examine options for financing oral health care for older adults. (Papers of the conference will be published.) The AARP recently launched a new dental insurance program managed through Delta Dental of California for retired individuals so that older adults can maintain dental insurance coverage through their retirement.

Medicare currently does not reimburse for services for "the teeth and/or supporting structures." However, Medicare will reimburse a dentist for an oral health service they would reimburse a physician, e.g., a biopsy or treatment of an oral candida infection. However, this reimbursement to dentists can be difficult to obtain from Medicare. Medicaid reimbursement for oral health services varies by state, with some states only providing reimbursement for children's oral health services. If a state Medicaid program does reimburse for adult oral health services, the reimbursement rates are often very low and/or the participation by dentists is not sufficient to meet the needs of the patients requiring care. Current data on Medicaid dental utilization for children suggest that for every four children who are eligible for Medicaid dental services, only one in four receives the care to which he or she is eligible. Experience has shown that when state budgets are cut, adult dental Medicaid coverage can be one of the first areas to be eliminated.

Clinical Research

Additional research is needed to continue to identify the relationships between systemic disease and oral disease. Several years ago, the Institute of Medicine studied extending Medicare coverage for three different conditions: skin cancer screening, medically necessary dental care, and the elimination of time limits on coverage of immunosuppressive drugs for certain transplant recipients.²⁴ In the area of medically necessary dental care, the Institute of Medicine committee evaluated cancers of the head and neck, leukemia, lymphoma, organ transplantation, cardiac

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valvular repair, and replacements. The Institute of Medicine recommended that the four requirements be present for dental care to be considered medically necessary. These requirements included: 1) the benefits of dental care outweigh the harm; 2) dental care improves the outcome for medical conditions; 3) effective dental care exists for those oral health risks; and 4) the disease burden from oral health risks on the medical condition is substantial.

The committee concluded that "little systematic research is available to assess the prevention and management of the oral-medical problems" stud-

ied. They further stated, "Standards of practice for these practices have been developed, often on the basis of plausible biological reasoning but without much evidence from well-controlled clinical trials."²⁴ The committee concluded that "direct evidence to support coverage for 'medically necessary dental services' varies depending on the medical condition to which dental services are related."²⁴

"More and better research is needed on the systemic implications of dental problems and the dental interventions to guide clinicians in caring for people with serious health problems and policymakers in supporting financial access to effective care."²⁴ Clinical research to develop evidence regarding best practices and standardized protocols for preventing and treating oral diseases in special needs populations will strengthen the ability to provide care and seek financial reimbursement for these services.

Preventive Protocols

The success of prevention of dental caries in children speaks to the dental profession's ability to creatively design preventive programs for special needs populations. Clinical trials to develop evidence-based protocols for fluoride varnishes and/or chlorhexidine rinses to prevent root caries and periodontal diseases are needed. Methods to educate family caregivers and/or nurse's aides on daily oral hygiene regimens for patients who need assistance, provide a leadership opportunity for the dental assistant, dental hygiene, and dental professions.

New Practitioner Models

Finally, the increase in special needs patients with oral health needs may require a new practitioner who can provide basic oral health care. Within the dental profession, several states are

expanding the role of dental hygienists within nursing home settings to improve access to primary preventive oral health care and triage oral health problems more readily.

Registered nurses have successfully demonstrated the ability to develop certified nurse practitioners in several areas, including geriatrics. Perhaps nurses could develop a certified nurse practitioner in oral health. The registered nurse would receive additional training in oral health and could work in a hospital and a long-term care facility. This person would have the ability to educate caregivers and other nurses in oral health, and oversee the daily oral hygiene care, minimum data set completion, and triage dental care for the residents.

Conclusion

Oral health doesn't have to decline with advancing age. Chronic illnesses, age, and multiple medications can increase the risk for root caries, periodontal disease, oral cancer, and other soft-tissue lesions. Once risk factors are identified, strategies to eliminate them can be implemented. Health and dental professionals must work together with special needs populations, their family members and caregivers to diagnose, treat and prevent oral diseases, subsequently maintaining health and improving their quality of life.

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The Role of Safety Net Providers in Delivering Oral Health Services for People With Special Needs

Neal A. Demby, DMD, MPH

Abstract

The U.S. health care system, best suited to acute care for adults, struggles to accommodate vulnerable populations (such as the elderly, disabled, and mentally ill), and struggles even more to find or put in place a system to care for special needs populations. Special needs populations require a protective and preventive system – one that helps families anticipate upcoming needs as patients transition through life cycles, and monitors problems as they arise while coordinating services. Developing such a system, using a life cycle methodology, is a critical health policy frontier.¹

While the United States spends dramatically more on health than most industrialized countries, comparable health status indicators are not reflective of this difference. Some have suggested four basic options for slowing trends in health care spending. These include increasing the financial incentives for patients to limit their use of services; increasing the efficiency of health care delivery; increasing administrative controls on the use of services; and limiting the resources available to the health care system. These are not easily managed, and success will not come without challenge. For one thing, all health care spending represents someone else's income and those who are facing a loss of income will work to block efforts to contain costs. In addition, each of these options, with the possible exception of the first, requires some people to get fewer health services than they would like.² This brings front and center the all-too-familiar scenario of rationing. For

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the most part, decision makers have been unwilling to acknowledge the inherent trade offs between health care costs and peoples' access to care. Or to put another way, serving as a safety net provider while still functioning as a business remains a challenge.³

Current efforts to improve system efficiency give priority to improving the quality of care and have an uncertain effect on costs. For example, efforts to increase the rate of conformity to practice guidelines may increase rather than decrease the use of services. Pay-for-performance initiative awards for improving quality are increasingly being utilized throughout the country. Blue Shield of California recently awarded more than \$24 million to 95 medical groups for improved health care quality and patient satisfaction, as well as technology investments to support patient care.

Special Needs, Vulnerable Populations, and Primary Care

The central focus of addressing the health of special needs patients, particularly children, rests with the provision of primary care.⁴ Recommendations to improve the health of children with complex needs have relied on programs with strong primary care services that offer high continuity of care and increased competence in coordinating linkages with subspecialty services, community-based support groups, and hospital-based care sites, more recently referred to as "medical homes."⁵ Recent surveys have documented this model characterizes the care of only about 50 percent of children with special health care needs.⁶ Other studies of children with specific chronic disorders such as asthma, cystic fibrosis and sickle cell disease have also found major deficiencies in the quality and coordination of services.⁷ Further, reimbursement patterns of Medicaid and the State

Children's Health Insurance Program continue to generate disincentives to "medical homes" or other comprehensive approaches to care for the chronically ill.⁸ Neither Supplemental Security Income nor managed care attempts at financing have made provisions for systems of care. It is informative to consider the following to gain perspective:

■ There is a growing body of evidence that many important adult diseases such as obesity, hypertension, diabetes, and cardiovascular diseases are

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affected by events during gestation and early childhood. In addition, the development early in life of health-related behavior, such as eating preferences, exercise, and tobacco use may extend into adulthood and affect the risk for a variety of adult-onset diseases.⁹

■ Hispanics have the highest and fastest-rising uninsured rates among all major racial/ethnic groups.¹⁰

■ SCHIP was passed to provide health insurance to children of low-income and working families. The current state fiscal environment has put that goal in jeopardy. This, despite a large multistate study that demonstrated a reduction in unmet health needs for enrolled children and adolescents. These reductions continued for spe-

cial needs populations. While special needs children and adolescents tend to have higher unmet needs regardless of their insurance, states can pursue strategies to minimize them including needs assessment, risk-adjusting capitation rates and expanding benefits, or arranging for wraparound services from other agencies. More importantly, there has been great improvement of the long-term uninsured after SCHIP enrollment. In summary, SCHIP has improved access to and satisfaction with care for all enrollees, even the most vulnerable.¹¹

■ Despite the above, a Kaiser study found that SCHIP enrollment was down in the second half of 2003, the first decrease since program inception. Enrollment reductions were attributed to shifting children to Medicaid, the addition of new premiums, eligibility cuts (500,000 dropped), reduction of benefits and other administrative changes.

■ One of every three disabilities experienced by the U.S. population are a result of conditions that arise during childhood.¹² Serious emotional and behavioral disorders affect at least 11 percent of youth by adolescence and are likely to persist into adult life.¹³

■ Children of mothers with depression are one of the highest risk groups for development of serious psychiatric disorders, academic failures, lower social competence, and higher utilization of health services.¹⁴

■ The strongest predictor in one long-term study by the National Institute of Child Health and Human Development of children's cognitive and social competence was the quality of maternal care giving.¹⁵

■ Over the past four decades, the percentage of children with limitations in their activities because of chronic health problems has more than tripled.^{16,17}

The Safety Net and Conflict

There is evidence the public is becoming more apprehensive about the value and costs of programs serving vulnerable populations.¹⁸ Too often, and demonstrably over the past several years, reductions in oral health services have occurred in many states. Ten states with the largest number of uninsured are, to no one's surprise, California (11 million); Texas (7.6 million); New York (5 million); and Florida (4.6 million), followed by Illinois, Ohio, Pennsylvania, Georgia, North Carolina, and Michigan. Nearly four in five individuals who went without health insurance were employed in 2002. Of the people uninsured during 2002, 22 percent were not in the labor force because they were disabled, chronically ill, family caregivers, or for other reasons.¹⁹


There is also evidence that income inequality and health are strongly related. To put another way, income inequality or those living at lower economic levels as opposed to higher, have a poorer health status. States and localities that are more income inequitable have poorer health as measured by a variety of indicators. Further, advocates for child health care argue they have become an unwitting casualty of an intergenerational conflict that pits the most vulnerable segments of our population, the young and the old, against one another in the competition for increasingly scarce social welfare dollars and resources. Unfortunately, this reinforces a portrait of generational spending that has been one of tension, cleavage, and competition.

The Safety Net: Voltage and Voltaire

Voltage Drops

The health care safety net for the

nation is stretched thin. Oral health services for special needs populations are a prime example of a nonsystem that is cobbled together by caring and committed individuals and organizations trying to allocate scarce resources within a framework of voltage drops and power outages. Eisenberg and Power adopted the term "voltage drops."²⁰ Voltaire, on the other hand, was an 18th century French writer and philosopher, who the author will return to further along. Just as an electrical system loses voltage when



Oral health services for special needs populations are a prime example of a nonsystem that is cobbled together by caring and committed individuals and organizations trying to allocate scarce resources.

currents pass through resistance, the health care system loses people as they confront barriers in six areas:

- Access to insurance coverage,
- Enrollment in available insurance plans,
- Access to covered services and providers,
- Consistent access to primary care/the "medical or dental home,"
- Access to referral services, and
- The delivery of high quality services.

The interplay and combinations and permutations of these six "voltage drops" create a conundrum and continuum of uncertainty and challenge for special needs populations and their families, caregivers, and

providers.

Voltage Drops and Primary Care

Starfield and others have long argued that access to a consistent source of primary care (inclusive of oral health services) was found to be the most important factor associated with receiving preventive care services. The stronger the primary care base of health systems, the lower the cost for health services.²¹ Children and special needs patients within a "medical home" system are half as likely to experience delayed or foregone care (they receive care in a timely manner); and the same children are less than half as likely to have unmet health needs for family support services than those outside the "medical home" environment.²² In addition, there were statistically significant decreases in parents missed workdays and hospitalizations.²³ Clearly, the conceptual basis of the "medical home" provides an approach to care that is accessible, continuous, comprehensive, family-centered, compassionate, culturally effective, and coordinated.

Access to oral health services for special needs patients is affected by many parameters including the number of providers in underserved or other communities, the choice and education of those providers, the availability of school-based health services, and cultural sensitivity of caregivers. The compelling priority is to find and reinforce programs that have the most effective and efficient coordination methods. Access also implies a ready availability of timely referral sources, feedback, and tracking. About 15 percent of American children have special health care needs, with asthma and attention deficit hyperactivity disorder accounting for 40 percent.²⁴

The widespread implementation

of “medical and dental home” programs is essential. Such efforts can create a seamless and comprehensive life cycle model, analogous to community health centers.

Safety Net Providers: Who Are They? (Table 1)

In Tables 2-12 are data summarizing Health Resources and Services Administration and Bureau of Primary Health Care programs. These programs provide access to vulnerable populations and those with special needs.

Community Health Centers

Started in the 1960s as a central element of Presidents Kennedy and Johnson’s “war on poverty,” federally funded community health centers remain one of the most successful and enduring programs in the country. Founded on principles of community governance, a life cycle approach to health services supported by an interdisciplinary primary care team, these centers form an environment that serves as a “medical/dental” home (many years ahead of its time) for the most vulnerable in society. Importantly, they are located within health professions shortage areas. The community health centers model suggests strongly that one can breed and replicate successful practices that include oral health services for special needs patients through 1) community involvement; 2) building an interdisciplinary team that integrates oral health and primary care; and 3) altering institutional, social and health policy to support the financing and delivery of dental services, in nontraditional ways (Tables 12 and 13).

Emergency Departments

A word on hospital emergency department capacity suggests the following: More than 100 million visits are

Table 1	Safety Net Providers
	■ Community health centers
	■ Hospitals
	■ Emergency departments
	■ State and local health departments
	■ Dental schools
	■ Dental hygiene school
	■ Other community health resources

Table 2	HRSA Bureaus
	■ Bureau of Health Professions
	■ Maternal and Child Health Bureau
	■ HIV/AIDS Bureau
	■ Bureau of Primary Health Care

Table 3	HRSA/BPHC Programs
	■ Consolidated Health Center Programs
	● Community health centers
	● Migrant health centers
	● Homeless health centers
	● Public housing primary care
	● Healthy schools, healthy communities

made each year to emergency departments in the United States, generating some 10 million admissions. The media reports that hospitals are closing their emergency departments and reducing access to emergency department services, raising concerns they are not sustainable under competition and managed care. Contrary to popular belief, the trend in California belies this suggesting, according to a study in health affairs, there is a robust market and

hospitals are adding to their emergency departments’ capacity to meet increased demand and access.²⁵ Supporting economic analysis shows that emergency departments are sustainable since they generate a sizeable and growing portion of inpatient admissions, which contribute to economic viability.

Common Threads

Safety net providers of oral health services for special needs patients are

beset by the same voltage drops previously mentioned, only with profoundly greater severity. While 45 million Americans have no health insurance, more than 100 million have no dental coverage. Most uninsured, underserved, and special needs populations rely on Medicaid, yet states are cutting budgets and often eliminating dental benefits. Though special needs populations often have public or private insurance, obtaining oral health services remains a significant problem due to the complexity of their needs; the lack of a system in place (dental home) providers; the lack of education and experience of the dental workforce in this specialized arena; as well as financing issues. If this were not enough, there are wide differences in spending by states for people with developmental disabilities. It is clear that models offering basic oral health services in connection with community-based primary care services may ensure comprehensive health care for our most vulnerable and underserved populations.²⁶

Strengthening the Oral Health Safety Net

Some Recommendations

Education

There has been a historical lack of education in how to care for special needs patients at the pre- and postdoctoral levels. The need for significant education and hands-on learning is essential, as well as the need to target those providers more likely to treat patients with special health care needs. These include dentists in small communities, those who accept Medicaid, and older dentists.²⁷ This may include mini-residencies, distance education and learning, and career tracks and alternatives in special care dentistry. A recent example includes the recogni-

Table 4

HRSA/BPHC Programs

- Other Programs
 - Native Hawaiian health care
 - Black lung clinics
 - Radiation exposure screening and education
 - Hansen's disease
 - Immigration health services
 - Drug pricing program 340B
- Service Expansion
 - Mental health
 - Substance abuse
 - Pharmaceutical services
 - Oral health

Table 5

HRSA/BPHC Programs (2002)

■ Grantees	843
■ Delivery sites	4,621
■ Workforce	69,956 FTEs
● MD/DO	5,735
● NP/PA/CNM	3,170
● DDS/DMD	1,230
● Dental hygienists	383
● Dental assistants	2,291

Table 6

HRSA/BPHC Programs (2002)

■ Grantees	843
■ Delivery sites	4,621
■ Workforce	69,956.33 FTEs
■ Patients	11,318,727
● Medical	10,075,994
● Dental	1,644,917
■ Encounters	44,777,627
● Medical	34,455,073
● Dental	3,787,923

Table 7**HRSA/BPHC Programs (2002)**

■ Grantees	843
■ Delivery sites	4,621
■ Total income (all sources)	5.2 billion
● Medicaid	44%
● Medicare	9%
● Other public insurance	4%
● Private insurance	12%
● Self-pay	31%→ Uninsured = 4,405,301

tion of diplomate status in special care dentistry.

Accreditation Standards

Standards must be reviewed and changed to incorporate competencies that will assure a workforce with experience in caring for patients with special needs. The dental education community must look at how caring for special needs populations can fit within revised accreditation standards at both the pre- and postdoctoral levels.

Table 8**Health Centers (2002)**

■ Health center programs with on-site dental programs: (77% of all programs)	530
■ Dental users: (14% of all health center users)	1,644,917
■ HP 2010 goal: 90% of all health centers to provide on-site access to primary oral health care services	

Safety Net Providers and a Continuum-Based Perspective

Safety net providers are often recent graduates. They may be National Health Service Corps assignees and without benefit of any residency training in general dentistry. It is critical, because of the populations they care for, to develop a significant educational process for them in caring for special needs patients. Workforce recruitment and retention remains a critical challenge for community health centers and developing strategies must consider issues ranging from indebtedness and lifestyle choices, to the nature of practice and equity considerations. Community health centers have been conceptualized to move oral health care away from its isolated "solo cottage practice" model, allowing it to be integrated with the health care system in ways that both improve access and quality, create "medical/dental" homes, and encourage interdisciplinary life cycle approaches to case and disease management. This continuum-based perspective, already in place at community health centers for some 40-plus years, helps ensure that contemporary advances in biomedical, population and behavioral and evidence-based sciences are integrated with patient care and education at all levels.

Table 9**Oral Health Care Professional Staff (2002)**

- In health center programs:
 - 1,052 dentist FTEs
 - 316 dental hygienists FTEs
- 5 physician FTEs to 1 dentist FTE

Table 10**Health Center visits (2002)**

■ Dental program visits: (14% of all health center visits – 100% of dental visits)	3,787,923
■ Dentist visits: (86% of dental visits)	3,349,319
■ Dental hygienist visits: (14% of dental visits)	438,604

The Dental Home

This has been described as an accessible family-centered, continuous, comprehensive, coordinated, compassionate, and culturally competent source of care that may offer a striking opportunity, for both the public and private sector, to impact access and quality management indicators for special needs patients.²⁸ A recent study suggested that efforts to reduce disparities in access to dental care and establish dental homes should include programs to increase patients' trust in dental professionals.²⁹

Social Marketing/Alliances

Exploration of social marketing and how to create alliances among obvious and not-so-obvious partners is essential in order to create consumer, patient and provider awareness. The formation of state oral health plans is an opportunity to bring stakeholders together. The New York State Task Force on Special Care Dentistry, sponsored by the governor and the Office of Mental Retardation and Developmental Disabilities, is another example of bringing together an empowered group to work on issues of education, access, quality management, pain and anxiety control, and publications to support and improve care for special needs patients in New York state. Whether these types of initiatives can foster the partnerships and collaboration needed to translate words into resources and ongoing organizational commitment and infrastructure, particularly in a period of scarce resources, remains a challenge for the future.

NO MONEY/NO MISSION or NO MARGIN/NO MISSION

PARTNERSHIPS/COLLABORATION and INNOVATION

Particular kinds of innovations have been called disruptive. However, associ-

Table 11

Health Center Patients by Income Level (2002)

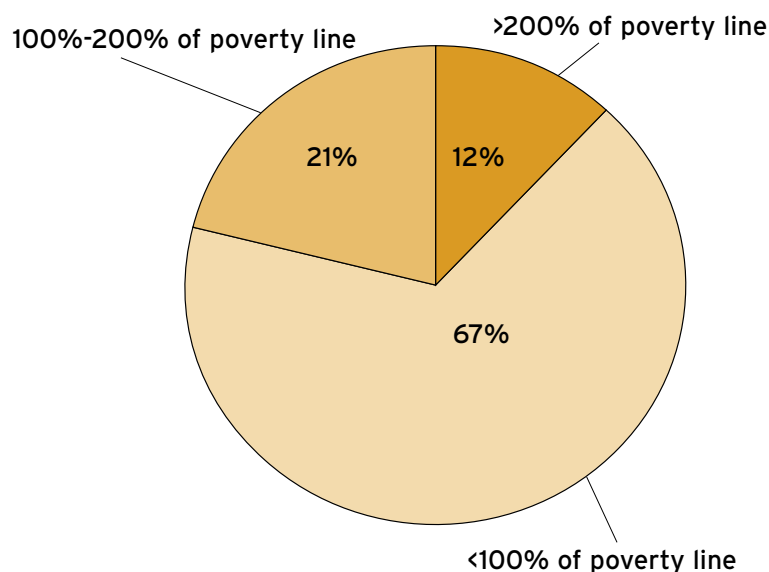


Table 12

Safety Net Providers

National Association of Community Health Centers summary

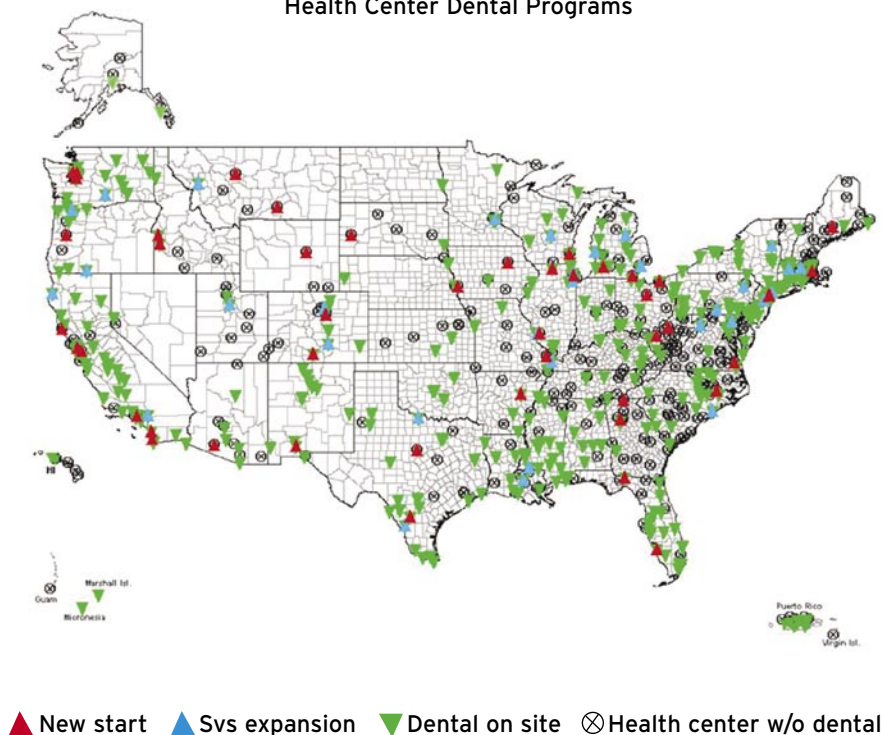
- CHCs are providing primary care to 15 million Americans.
- Number of health center uninsured patients grew by 11% during 2003 alone.
- 110.2 million visits to emergency department (ED) in 2002 up from 89.8 million in 1998.
- 10% to 50% of all ED visits are for nonurgent and avoidable conditions. Savings between 1.6 to 8 billion if seen at CHCs.
- Number of primary care physicians per capita is shrinking.
- Cuts in direct funding and Medicaid challenge health centers.

Source: National Association of Community Health Centers

Table 13

Bureau of Primary Health Care

Health Center Dental Programs



Source: BPHC Dental Programs

ated with that premise lies a strategy that can reap great harvests. In the following case study, disruptive innovation has been utilized within a safety net and postdoctoral training environment to increase access to vulnerable populations and ameliorate recruitment and retention (workforce) issues for many of the nation's community health centers.

Lutheran Medical Center, a 476-bed teaching hospital in Brooklyn, N.Y., is one of the oldest and largest federally qualified health centers in the country. Since its inception, it has housed a growing Department of Dental Medicine providing more than 50,000 oral health visits annually. The health center operates as a hospi-

tal-based multispecialty group practice generating more than 600,000 encounters yearly. There are four postdoctoral training programs in general practice residency, advanced education in general dentistry, pediatric dentistry, and endodontics with a total of more than 75 residents.

In a nontraditional and innovative approach to dental education, Lutheran Medical Center has pioneered collaborative partnerships (Table 14 and 15) partnered with community health centers, the Indian Health Service and other safety net providers throughout the country, establishing a service learning environment for full-time resident training. Adjusting and titrating the balance between service and learning

in programs that had been historically service-oriented proved disruptive and challenging at times; however, it is always worth the trade off and outcome. Health centers are linked through a comprehensive synchronous and asynchronous distance-learning curriculum that satisfies accreditation standards and allows the use of advanced telecommunications methodologies in dental education. Ongoing faculty development initiatives and caring for those most vulnerable have created an environment that is unusual and stimulating for all involved. Special needs patient visits account for 25 percent to 30 percent of the 100,000-plus visits generated each year by residents serving in safety net organizations. Close to 50 dental residents are currently located in approximately 50 extramural sites in New York, Rhode Island, Massachusetts, Colorado, Arizona, Alaska, Hawaii, and Tennessee (Table 16). This is an example of how one institution, with a distinct mission and focus, has made a difference.

Quality Improvement/Disease Management/Access

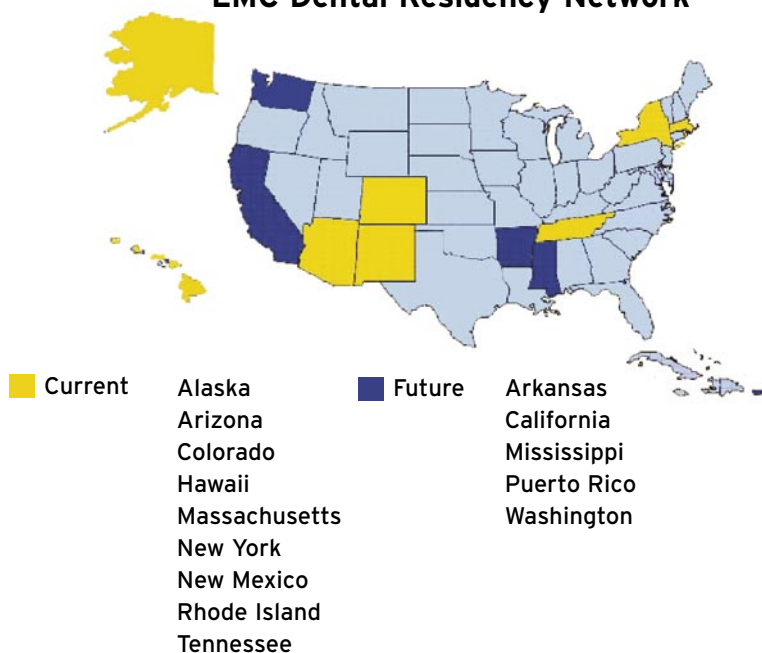
There is concern about the quality of care being provided to special needs patients. There is a need for quality management guidelines and parameters in oral health for special needs patients. While appropriateness issues, including under- and overutilization need to be explored, opportunity is apparent in assessing and adopting pay-for-performance measures. Some studies suggest a significant barrier to providers in not caring for special needs patients may be reimbursement related. To the extent that access is, and will remain, the most significant problem in providing oral health services to this population and is linked to reimbursement, it is essential to tie performance and quality incentives together. This is a fertile area for

Table 14**Collaborative Partnerships**

- Community health centers
- Public health commissions
- Indian health services
- Group practices (profit and nonprofit)
- Health science centers
- Prison health systems

Table 15**Collaborative Partnerships**

- Managed care organizations
- Veterans Administration
- Community hospitals
- Health departments
- Liaison with National Health Service Corps
- Other ambulatory care organizations

Table 16**LMC Dental Residency Network**

research.

Why Not the Private Sector?

Managed care organizations and multispecialty organizations are potential organizational structures that may foster the dental home.

Social, Health Policy and Legislative Activism

In summary, none of the previously mentioned, while it may appear so, stand alone and are mutually exclusive from one another. They are indeed often inextricably entwined.

Conclusion

Perhaps the most powerful policy implications of linking primary care, "medical/dental homes," and life cycle approaches to special needs patients is that it permits and provides an expanded view of health along a seamless continuum. Life cycle policy is essentially prevention with the longest time horizon possible: from conception to death.

One thing we must learn from the past is that efforts to help special needs patients, especially those from impoverished or immigrant backgrounds, require the cooperation of diverse groups with often differing agendas, but ultimately a common purpose, to construct an effective public health enterprise. There are social architects who can keep an edifice intact, but only with constant labor and attention. Dentists, policymakers, and other health professionals have a major stake in meeting a new century of challenges for those with special needs with creative, fiscally responsible, and culturally sensitive solutions.

The most famous line in Voltaire's *Candide* is the final one: "We must cultivate our garden." That is Candide's response to the philosopher Pangloss, who tries again and again to prove that we live in the best of all possible worlds, no matter what

disaster befalls. Ever since *Candide* was published in 1759, that line has seemed to express a reluctance to get involved, an almost quietist refusal to be distracted by the grand chaos of earthly events. And that reading might make sense if *Candide* hadn't already lived through a lifetime of woe and travail. In fact, that line is the summation of *Candide's* (and perhaps our own) wisdom, his recognition **CDA** no matter how you choose to explain the world, no matter how many voltage drops we need to traverse, the garden still needs cultivating.

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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

The scope of new duties and allowable practice settings differ state by state as does the title for the new role or category.

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

SB 1589 specifies that the RDHAP may practice in safety net organizations and public health entities, including public hospitals and tribal clinics.

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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Education of Dentists in the Treatment of Patients With Special Needs

Todd Thierer, DDS, MPH, and Cyril Meyerowitz, DDS, MS

Abstract

The dental education system has been suggested as the vital link in providing a workforce capable of improving oral health for people with special needs.^{1,2} Dental education institutions not only train dental professionals for their role in providing oral health services for people with special needs, they also provide a significant amount of services to this population in their clinical environments. However, there is no consensus about whether to concentrate the educational efforts on the pre- or postdoctoral level, or both. Furthermore, it is not clear if educational initiatives in the care of patients with special needs will translate into a larger oral health workforce willing to treat these patients. However, for the purposes of this paper, it will be assumed that more education and training in special care dentistry will lead to better-educated dentists and the desired result of better access to care for special needs patients.

The authors will define special needs patients as those who have a chronic physical, developmental, behavioral, or emotional condition, and who also require health and related services of a type or amount beyond that the general population requires. This paper will describe accreditation issues and discuss the advantages and disadvantages of special care education in pre- and postdoctoral training and beyond.

Initially, the focus of treatment for what we now refer to as special needs patients, was on pediatric patients. Many special needs patients did not live into adulthood. It was also common to view the adult special needs patient as not progressing developmentally past a certain age. Kamen traces the beginning of the movement for advancement of the developmentally disabled child to the mid-1940s, shortly after World War II.³ In 1948, the Dental Guidance Council for Cerebral Palsy of New York City was formed. In 1950, a graduate fellowship program and dental clinic patients with cerebral palsy was started. The first hospital-based postgraduate training program in mental retardation was initiated in 1956 by Flower Fifth Avenue Hospital in New York City. Cataldi stated that this increasing interest "was not due so much to a greater awareness of parents of the importance of dental care for their children, but because improved



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methods of medical treatment were prolonging the lives of many such children to the point where dental care became a necessity rather than an isolated problem which dentists could ignore."⁴ In the mid-1950s, conferences, sponsored by the American Association of Dental Schools (now known as American Dental Education Association), were convened to determine how dental schools could best handle this issue. Kamen stated, however, that "It is sad to report that in the '50s and '60s, less than a dozen dental schools offered postdoctoral training of any significance in the provision of dental care for special patients.³ The picture of neglect on the undergraduate level, as well as in continuing education in this period, is one which tarnishes the record of our teaching institutions."

In the 1970s, there was a renewed effort to address the education of dentists in the treatment of special needs patients. The Rehabilitation Act of 1973 made it illegal for health care providers to withhold services to otherwise qualified persons on the basis of handicap. The Robert Wood Johnson Foundation in 1974 granted \$4.7 million dollars to 11 dental schools for undergraduate training programs in dental care for the handicapped. In 1978, the U.S. Department of Health Education and Welfare conducted an evaluation of funded programs for training (primarily undergraduate) dentists to treat children with handicaps.⁵ They found that these programs "were judged to be providing better exposure to the handicapped for their students than the comparison programs." They went on to suggest that "Both short-range and long-range national estimates of manpower requirements to treat handicapped children should be developed." The report recommended "these estimates should consider attitudinal factors (e.g., willingness to treat) and technical capability derived from training ..." In 1979, a conference was convened on Dental Care for the

Handicapped.⁶ Specific recommendations for curriculum development were made. The conference report concluded that a barrier to treatment of this patient population are "practitioners, who, as dental students, did not have training and/or experience in caring for the handicapped and who, therefore, are not emotionally or professionally prepared to do so." Stimulated by these events, curriculum guidelines were established in the mid-1980s to provide instruction for treating special needs patients.⁷

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In May 2000, Oral Health in America: A Report of the Surgeon General was released.⁸ The authors stated that "This surgeon general's report has much to say about the inequities and disparities that affect those least able to muster the resources to achieve optimal oral health." "Individuals with disabilities and those with complex health problems may face additional barriers to care." In 2001, the American Dental Association released the Future of Dentistry report which stated, "The dental education curriculum should become more relevant to the practice of modern dentistry. Areas which should receive greater emphasis include: special needs populations ..." and "Stipend support and positions for postgraduate residency training must be made available to increase the numbers of dentists capable and willing to provide care to low-income

and special needs populations." The report went on to state that "Individuals with physical, sensory and developmental disabilities that limit mobility or are accompanied by exceptional treatment needs, face special challenges in receiving regular dental care, as they do with many aspects of everyday life. The skills and experience required to treat some of these individuals is sometimes beyond the capabilities of the average dentist. Educational programs to train providers with the specialized necessary skills will be important." The ADA also adopted Resolution 66H, Oral Health Access for Persons with Special Needs, at its 2002 annual meeting in New Orleans. The resolution encouraged dental and allied dental programs to educate students about the oral health needs and issues of people with special needs. In May 2001, a conference on Promoting Oral Health of Children with Neurodevelopmental Disabilities and Other Special Needs was held.⁹ The subsequent report recommended that dental schools "Provide general dental students with direct experience with children, including children with special health care needs ..."

The discussion illustrated there has been a long and concerted effort to address the education of dentists to treat special needs patients at the undergraduate and postgraduate level. However, it wasn't until the late 1970s where the activity had reached the level that the Commission on Dental Accreditation, sanctioned by the Department of Education and accredits all dental education programs, reflected the interest in special needs patients by incorporating new requirements into pre- and post doctoral training program standards.

Accreditation Issues

The Commission on Dental Accreditation originally adopted language for predoctoral dental education and dental hygiene clinical instruction for special needs patients in 1979, follow-

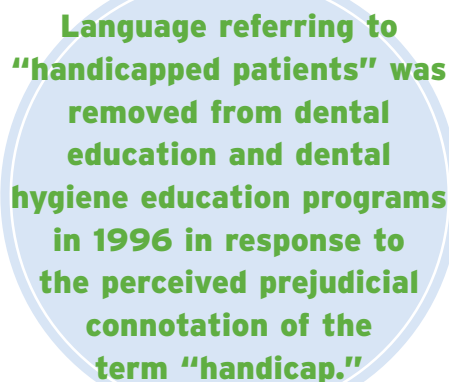
ing the National Conference on Dental Care for Handicapped Americans. It encouraged dental and dental hygiene programs to provide didactic and clinical instruction in managing "handicapped" patients. This language referring to "handicapped patients" was removed from dental education and dental hygiene education programs in 1996 in response to the perceived prejudicial connotation of the term "handicap." No substitute language replaced this editorial change. In 2001, there was a formal request to reintroduce language in the accreditation standards related to special care patients.

New accreditation language for both dental education and dental hygiene programs were adopted by Commission on Dental Accreditation in 2004. Standard 2-26 for dental education programs (predoctoral and dental hygiene) now states, "Graduates must be competent in assessing the treatment needs of patients with special needs." Dental Hygiene Standard 2-14 states, "Dental hygiene science content must include oral health education and preventive counseling, health promotion, patient management, clinical dental hygiene, provision of services for and management of patients with special needs, community dental/oral health, medical and dental emergencies including basic life support, legal and ethical aspects of dental hygiene practice, infection and hazard control management, and the provision of oral health care services to patients with bloodborne infectious diseases." Additionally, Dental Hygiene Standard 2-18 states, "Graduates must be competent in assessing the treatment needs of patients with special needs."

It is apparent the current accreditation standards do not require that dental and dental hygiene students actually be competent to treat special needs patients, only that they are competent in their assessing their treatment needs. Whether or not this competency is

sufficient to prepare dental students to treat special needs patients in their offices is doubtful.

In 2005, the American Dental Education Association, in an effort to ensure that dental education programs provide treatment experiences for people with special needs during their programs adopted this resolution, "Resolved, that ADEA, consistent with its existing policy, urge the American Dental Association Commission on Dental Accreditation to adopt accredi-



Language referring to "handicapped patients" was removed from dental education and dental hygiene education programs in 1996 in response to the perceived prejudicial connotation of the term "handicap."

tation standards that ensure that education programs include both didactic instruction and clinical experiences involving treatment of people with special needs as defined by the commission, and appropriate for the type of educational program in which the student is enrolled."

In contrast to the predoctoral and dental hygiene standards, the Commission on Dental Accreditation requirements for general practice residency and advanced education in general dentistry programs require that all programs "Plan and provide multidisciplinary oral health care for a wide variety of patients including patients with special needs." Additionally, general practice residency and advanced education in general dentistry Standard 2.3 states, "Residents completing the

program must receive training and experience in providing comprehensive multidisciplinary oral health care at a level of skill and complexity beyond that accomplished in predoctoral training for a variety of patients, including patients with special needs."

Pediatric dentistry is described by the Commission on Dental Accreditation as an age-defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs. There are many standards in pediatric dentistry that relate to special needs patients. For example, Standard 4-1 states, "The goal of an advanced education program in pediatric dentistry is to prepare a specialist who is proficient in providing both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs." Standard 4-3.2, the clinical science core, mandates training which includes, "The epidemiology of oral diseases encountered in pediatric patients, including those pediatric patients with special health care needs, the oral diseases encountered in pediatric patients, including those pediatric patients with special health care needs and formulation of treatment plans for patients with special health care needs." The same standard goes on to require, "Fundamentals of pediatric medicine, including those related to pediatric patients with special health care needs, etc." There are many other standards that address requirements for facilities, didactic requirements, and additional clinical experiences related to special needs patients. These standards mandate that treatment of special needs patients is an integral part of the training to be a pediatric dentist.

Clearly, there are different expectations in the accreditation standards for



predoctoral and postdoctoral education. This raises the question as to where the best place is to focus educational resources, on the predoctoral or postdoctoral level? Lest we think this is a new discussion, Castaldi, in a 1957 paper in the *Journal of Dental Education* stated that "Although the administrators of a few institutions believe that a course of study in dental care for the handicapped should be taught in the undergraduate years, there are those who believe that it is best taught at the postgraduate or graduate level."⁴ There has been a recurrent assertion that the dental school curriculum is already too crowded and adding additional training will need to come at the expense of other topic areas. Many dental school administrators have argued that implementing these training requirements will tax the financial resources of dental schools who are already struggling to maintain financial solvency. However, because only a portion of dental graduates continue onto postdoctoral training programs, many dentists must rely on the training they received in dental school when treating special needs patients.

Predocctoral Education

There are many good arguments to address the education of dentists for the special needs population on the undergraduate level. The most compelling is that it would ensure that all dentists have the training needed to treat special needs patients. There is also evidence in the literature that giving dental students training in special needs patients increased their confidence and comfort level in treating this population. Kinne and Stiefel found that "students' perceived confidence in treating handicapped persons increased significantly as the result of specific instruction in disability management."¹⁰ Casamassimo found that "Practitioners who reported that they received educational experience in children with special health care

needs in dental school that were both hands-on and lecture were significantly more likely to report that they often or very often treated these patients."¹¹ Conversely, the authors noted that dentists who did not receive this training in dental school were significantly more likely to report that they never treated special needs patients.

Arguing against implementing the special needs curriculum at this level is the history of marginally successful programs, despite significant grants

Recent data suggest that only 25 percent of general practitioners have had educational experiences with special needs patients (self-reported).

and attention from the Robert Wood Johnson Foundation and the federal government. In 1993, the Academy of Dentistry for Persons with Disabilities surveyed all U.S. and Canadian dental schools about the amount of curriculum time devoted to the care of special needs patients.¹² They found there was an average of 12.9 hours of didactic and 17.5 hours of clinical training in a four-year course of study. In 1999, a follow-up study showed a decrease in these numbers.¹ Recent data suggest that only 25 percent of general practitioners have had educational experiences with special needs patients (self-reported).¹¹

It is not surprising the administrations or leaders of dental schools have not embraced incorporating this training into their curriculum. They have also been reluctant to embrace accreditation

standards that would require them to train students to competence in treating special needs patients. Logistic difficulties providing students with adequate experience has been cited as the basis for this. It is unlikely that the resistance to changing the accreditation standards to mandate predoctoral training in the treatment of special needs patients, rather than assessment, will change in the near future.

Postdoctoral Education

There is a paucity of literature regarding the history of postdoctoral training of dental residents to treat special needs patients. Kamen indicated these efforts started in the mid- to late- 1950s.³ What little literature exists indicates there has been a long history of both clinical and didactic training in the treatment of this population in both pediatric and general dentistry programs. These programs have also provided a significant amount of service to the special care population. In a recent article, which surveyed postdoctoral general dentistry program directors, the authors noted "it was clear that program directors recognized the unique mission of these programs in serving as a safety net for disadvantaged populations."¹³ There are a number of good arguments in favor of concentrating resources for education in special needs on the postdoctoral level: The infrastructure is already in place, at least in pediatric and postdoctoral general dentistry training programs, and these programs are uniquely suited to teach the treatment of special care patients because of the broad education in the ancillary areas this population frequently needs. For example, many special needs patients cannot be treated without sedation or general anesthesia, skills taught on the postdoctoral level. There are established accreditation requirements requiring training to competency in treating patients with special needs; and finally, there is substantial

curriculum and training in these programs for the treatment of patients with medically compromising conditions, an important facet in the care of special needs patients. To ensure more dentists receive this training would not require major changes in the programs themselves, but would require an expansion in the size and number of programs. It would also be significantly facilitated by mandating that all dental graduates complete a postdoctoral training program.

This requirement for a postdoctoral year has been discussed for many years and has many compelling arguments related to educational competency and licensure, which are beyond the scope of this paper. However, one of the more important reasons to advocate for a mandatory postdoctoral year is to increase the number of dentists qualified educationally to treat special needs patients. Some states (New York and Delaware at the time of this writing) already have legislation in place requiring a postdoctoral year for licensure. Other states may follow suit. However, it will be a long time before there is general consensus in this area and the political and logistic hurdles involved are solved. A recent article by Lefever et al. in a survey of practicing dentists, found the sample essentially split in their support for a mandatory postdoctoral year.¹⁴ A required year of postdoctoral training has been addressed extremely well in a series of papers in a special issue of the *Journal of Dental Education*.¹⁵ These papers advocate eloquently for a required postdoctoral year and discuss and suggest solutions for the many obstacles that exist to this idea. These include expansion of programs and positions to include all graduates of dental schools; identifying sources of funding for these programs; addressing student antipathy toward an additional year of education, and the effect on their debt load and dealing with the

concerns of predoctoral educators on the possible impact on the predoctoral curriculum; and the notion that graduates of dental schools are already competent to practice dentistry, to mention a few. It is noteworthy that in a recent survey of deans of dental schools, the majority favor required postdoctoral training.¹⁶ However, many deans feel the predoctoral curriculum needs to be revamped prior to that happening. That is unlikely to happen soon. It is clear that a required year of postdoctoral

Traditionally, pediatric dentists have treated special needs patients at a higher rate than general dentists and typically continue to treat this patient population into adulthood.

training, which would have a positive impact on the education of dentists in special patient care, has a long way to go for it to become a reality.

A further issue worth considering in postdoctoral education is the question of what age range of special needs patients postdoctoral general dentistry and pediatric dentistry programs should focus. Traditionally, pediatric dentists have treated special needs patients at a higher rate than general dentists and typically continue to treat this patient population into adulthood. However, they have not necessarily embraced this role.⁹ In a recent study, 55 percent of pediatric dentistry program directors said it should not be the role of pediatric dentists to treat adult special needs patients.¹⁷ Some educators recognize that the role of general dentists in the

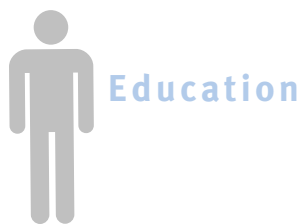
treatment of adult special needs patients requires education both in postdoctoral general dentistry programs and in continuing education.

Continuing Education and Other Postgraduate Education

There have been a number of examples of continuing education courses and fellowships that have attempted to train dental providers to treat special needs patients. Special care dentistry, which according to its website is "the only national organization where oral health and other professionals meet, communicate, exchange ideas, and work together to improve oral health for people with special needs," has recently formed the American Board of Special Care Dentistry to grant the credential of diplomate in special care dentistry.¹⁸ Candidates must have attained fellowship status in one of the special care dentistry component organization. This involves completing a defined number of continuing education credit hours and passing an exam.

A number of institutions have developed educational programs focused on special needs patients. The University of Washington currently offers short-term and long-term clinical training programs for dentists through their Dental Education in the Care of Persons with Disabilities program. These training programs involve some distance learning for the didactic portions as well as clinical training. There also is a three-year training program in rehabilitation dentistry which prepares dentists for a research career focused on oral health of persons with disability. Trainees complete the requirements for either the master of science in dentistry degree in oral medicine or the master of public health degree, and have the option of continuing to a doctoral degree.

The University of the Pacific provides training materials to dental providers, including printed and video materials



regarding the dental care of special needs patients. They also act as a resource for obtaining further information on education and training in the treatment of patients with special needs.

The University of Rochester in New York state has recently received a grant to train community dentists to treat developmentally disabled patients in the operating room. There is a formal training program which will furnish the dentist with the skills and qualifications necessary to treat developmentally disabled patients under general anesthesia.

All of these efforts are currently directed at interested dental providers through continuing education, are voluntary, and are fairly limited. It is possible other states could make this training a mandatory requirement for licensure as some do now with infection control training, child abuse prevention training, etc. To do this would require a substantial expansion of educational offerings in this arena. Absent a requirement for licensure at best, continuing education will reach a small number of dentists, but is still a worthy undertaking.

Summary and Conclusions

Any efforts to increase the pool of providers willing and able to care for special needs patients will obviously come with a price tag and a substantial commitment of resources. Where these resources can best be applied in a cost-effective manner is a question larger than the scope of this paper. It might be argued that committing resources to creating specialized centers for the treatment of special needs patients with well-compensated providers will create a market incentive for providers to obtain additional training. Perhaps the same forces which create demand for other specialty training programs can be applied to a new specialty of special care dentistry. This effort is moving forward in the United Kingdom. Brooke recently

stated, "A recognized training pathway in special care dentistry is now essential.¹⁹ It would draw together the component parts of the discipline, thereby enhancing the quality of patient care. Such a training pathway would provide a standard approach to training, delivered through a specialty framework."

Addressing the educational issues on the basis of continuing education is an area which has not had much investigation. There are precedents for requiring additional training in certain

It is clear that the issue of educating adequate numbers of dentists to treat special needs patients is complicated and fraught with many obstacles.

areas in order to become licensed in a particular state. However, most of these require didactic, rather than clinical training, which would likely be insufficient for training dentists to treat special care patients.

It is clear that the issue of educating adequate numbers of dentists to treat special needs patients is complicated and fraught with many obstacles. There have been many efforts over the greater part of the last half-century to address the educational needs of dentists treating this population. In reviewing the literature and history of these efforts, it appears that, although it might make sense to focus on the predoctoral level to ensure all dentists have some education in special needs patients, dental schools do not embrace this approach. Additionally, in an already crowded predoctoral curriculum, adequate time

might not be available to truly develop competency. To significantly impact education for special needs patients on the postdoctoral level, many obstacles have to be overcome. However, there is a long history of successful clinical and didactic training in special patient care in these postdoctoral programs. A required year of postdoctoral training would certainly increase the number of dentists educated in treating these patients, and there are many other compelling reasons for it.

It should not be forgotten, however, that having the education does not necessarily lead to greater involvement in treating special needs patients. Casamassimo, in his recent survey, noted that "those with advanced education in GPR and AEGD programs were not more likely to care for children with special health care needs while older dentists, who tended not to have special needs patient education, were more likely to care for these patients."¹¹ Thus, it is important to challenge our assumption that the education of dentists in the treatment of special care patients will lead to an increase in availability of providers to treat this population. Clearly, there are other issues that come into play. For example, Waldman and Perlman noted that "Efforts to develop education opportunities to ensure student competency in the care of individuals with mental retardation/developmental disability, however, do not necessarily ensure a willingness to provide care ..."²⁰ "Obviously, realistic third-party reimbursement must be addressed as must-needed changes of many societal values." In the pursuit of the overall goal, to provide the special needs patient population with the oral health care they need, education at all levels is crucial. It is, however, just one part of a very complicated equation that to solve, requires a multifaceted approach.

Clearly, education, although valu-

able in itself in enhancing the sensitivity of dentists to patients with special needs, must also lead to greater involvement in the care of these patients in order for it to be most beneficial. **CDA**

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Financing Oral Health Services for People With Special Needs: Projecting National Expenditures

Paul Glassman, DDS, MA, MBA, and Gregory Folse, DDS

Abstract

Low-income people with disabilities or who are elderly have more dental disease, more missing teeth, and more difficulty obtaining dental care than other members of the general population. These realities lead to untreated infection, increased medical costs and needless suffering for the most vulnerable members of our society. It is critical we provide adequate reimbursement for oral health services in order to avoid the tragic and costly consequences of oral neglect. This article focuses on the financial implications of delivering oral health services to low-income individuals who are "aged, blind, and disabled" in the United States. The experience of providing oral health services in California for these populations is extrapolated to predict the cost implications of a national reimbursement system for ABD adults under Medicaid and reform Medicaid oral health programs for vulnerable children. The new federal dollars required to implement this legislation would be more than offset by a conservatively estimated 0.5 percent reduction in costly emergency room and hospital charges for the treatment of serious dental problems, as well as a reduction in the prevalence and severity of several general health conditions. Treating and/or preventing oral infection and disease for the ABD populations in our country will significantly reduce overall health care costs, improve quality of life, and end needless suffering for America's most vulnerable citizens. Treating and/or preventing oral infection and disease for this population simply is the right thing to do.

There is extensive literature demonstrating that people with disabilities have more dental disease, more missing teeth, more chewing problems, and more difficulty obtaining dental care than other members of the general population.¹⁻⁶ These realities lead to untreated infection, increased medical costs, decreased quality of life, and needless suffering for the most vulnerable members of our society. This literature and the conclusion that this situation is growing worse are reviewed in the previous issue of this journal.⁷ The consensus statement contained in that issue lists a number of problems with the ability of the current oral health care system to meet the needs of people with disabilities and presents recommendations designed to address those problems.⁸ Among these is the recommendation to provide adequate reimbursement for oral health services in order to avoid the tragic and costly consequences of oral neglect. This article focuses on the financial implications of delivering oral health services to low-income people who are defined by the Social Security Act as "aged, blind,



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and disabled” in the United States and eligible for services under the Medicaid program. California’s experience of providing oral health services to adult ABD Medicaid recipients is extrapolated to predict the costs of a national oral health program targeted to serve this population.

Medicaid and the “Aged, Blind and Disabled” Population

The number of people with special needs who need oral health services is rising dramatically.⁷ In this context, people with special needs refers to people who have difficulty having good oral health or accessing oral health services because of a disability or medical condition. The U.S. Census reported in 2000 that 49.7 million people in the country’s population had a long-standing condition or disability.⁹ They represented 19.3 percent of 257.2 million people who were aged 5 and older in the civilian noninstitutionalized population, or nearly one person in five. Further, the 2000 census reported that people with disabilities were far less likely to be employed than nondisabled people, and were far more likely to have incomes at or below the federal poverty level. The proportion of young people with disabilities who were below the federal poverty level was 25.0 percent, compared with 15.7 percent for those without disabilities. The next highest proportion of individuals below the federal poverty level for both groups was found among people 16 to 64 years old — 18.8 percent for those with disabilities; nearly double the rate for those without (9.6 percent). Among people 65 years old and over, the respective proportions were 13.2 percent and 7.4 percent.

Medicaid is an important source of health care coverage for the low-income aged, blind, and disabled populations in America. The Medicaid program is

administered at the federal level by the Centers for Medicare and Medicaid Services, formerly called the Health Care Financing Administration, within the U.S. Department of Health and Human Services. While states have flexibility in determining the criteria they use to define this population, every state has a defined population in their Medicaid program that fits into the categories of “aged, blind, and disabled.”^{10,11} In general, to be classified as a Medicaid-eligible ABD adult, the individual must fit into one of the defined categories and have an income that is equal to or below the state’s income standard, the

Optional groups include certain ABD adults who have incomes above those requiring mandatory coverage but below the federal poverty level.

maximum amount of income a person can have and still be eligible. States have certain groups of people, including certain aged, blind, and disabled individuals whose coverage is mandatory and other groups whose coverage is optional. These optional groups include certain ABD adults who have incomes above those requiring mandatory coverage but below the federal poverty level.¹²

Medicaid represents the second largest category of state spending and the largest share of federal funding provided to states.¹³ This is illustrated in **Figure 1**. In the United States in 2002, there were 39.9 million people enrolled in Medicaid programs. Of these 11.7 million, or 29 percent, were categorized in one of the ABD groups. In 2004, there were 42.2 million people enrolled in Medicaid

programs. Of these 12.2 million, again in 2004, 29 percent, were categorized in one of the ABD groups.^{14,15} Nationally, the disabled population enrolled in Medicaid grew by more than 50 percent during the 1990s.¹⁶ CMS reported that in California in 2000, those individuals enrolled in the state’s Medicaid program represented 23.7 percent of the total state population while the Public Policy Institute of California reported this figure to be around 19 percent for 2000 and 21 percent in 2003.^{17,18}

In California, the state’s Medicaid program, Medi-Cal, is administered by the California Department of Health Services. DHS reported in 2002 that there were 6.5 million people eligible for Medi-Cal in the 2002-03 fiscal year.¹⁹ Of these, 1.5 million or 24 percent were in ABD categories. DHS also reported that 52 percent of Medi-Cal eligible individuals are adults.²⁰

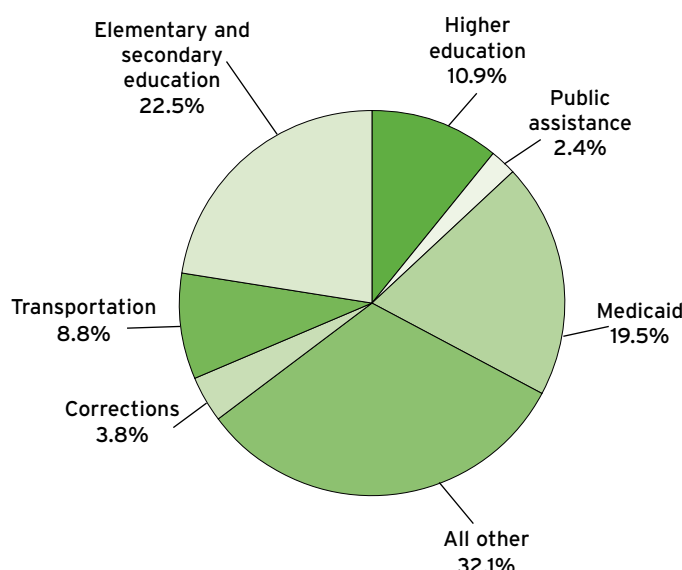
Nationally, people who are categorized as aged, blind, or disabled use a much larger share of total Medicaid expenses than their share of the eligible population. As illustrated in **Figure 2**, in 1999, the ABD groups represented 28 percent of the total U.S. Medicaid beneficiaries. However, they accounted for 72 percent of the total U.S. Medicaid payments.¹³ As demonstrated in this article, this disproportionate share of expenditures does not exist with payments for dental benefits. Focusing resources on improving the general health of the ABD population should result in significant expenditure reductions for federal and state governments.

ABD individuals also constitute almost all of the Medicare population. In 2003, there were 41.1 million total Medicare enrollees. Of these, 35 million were classified as aged and 6.1 million as disabled.²¹ It should also be noted that there are many Medicare recipients who are also eligible for Medicaid.²² In 1997, they accounted for 19 percent of

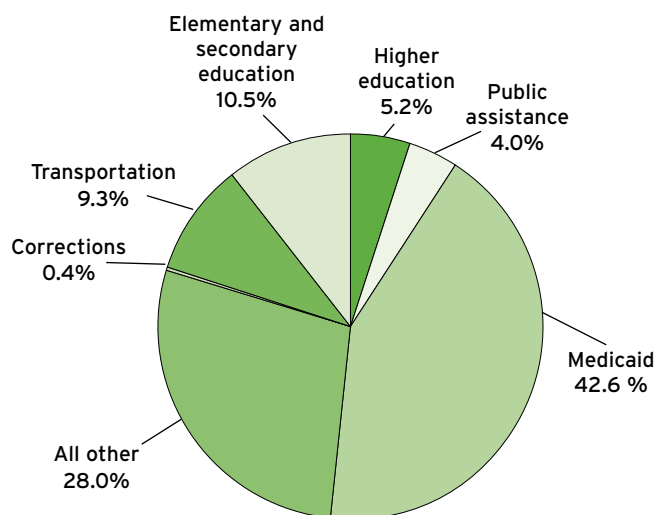
Total State Spending and Federal Funds Provided to States, 2000

More than 19 percent of state total spending and more than 42 percent of federal funds provided to states were spent on Medicaid.

Total state spending*



Federal funds provided to states



*Note: When only general funds are examined, the proportions change somewhat. Medicaid is the second-largest state program in either total or general funds.
Source: National Association of State Budget Officers, 2000 State Expenditure Report.

Figure 1. State and federal Medicaid expenditures.¹³

the Medicaid eligible population but were responsible for 35 percent of the Medicaid expenditures in that year. There were about 38 million aged and disabled Medicare enrollees in 1997.²³ That means that dual eligible ABD individuals constituted 17 percent of the total Medicaid enrollees. In 2002, CMS reported that 22 percent were dual eligible.²⁴ Because Medicaid is the payer of last resort, Medicare pays for most of the costs of the health care provided to beneficiaries with dual eligibility.^{25,26}

Medicaid is funded partly by the federal government and partly by the states. The federal government matches

state expenditures under the Medicaid program. The amount matched is determined by a formula based on the Federal Medical Assistance Percentages.²⁷ The FMAP varies from state to state with the lowest amount being 50 percent. States with lower average income per person receive a higher FMAP. For example Mississippi receives 77.3 percent of their Medicaid expenses as reimbursement from the federal government, while California receives 50 percent. States can receive an enhanced FMAP for certain services under the Social Security law.²⁸ Some examples of these enhancements include Section 1923(a)(1) payments

for hospitals to "take into account the situation of hospitals which serve a disproportionate number of low-income patients with special needs;" Section 1903(a)(2)(B) payments for nursing aid training and competency evaluation; and Section 1903(a)(2)(C) which provides for reimbursement at 75 percent for costs attributable to preadmission screening and resident review activities in nursing facilities.

Dental Coverage Under Medicaid

The federal Medicaid program mandates that certain services be provided to eligible recipients. In addition there are

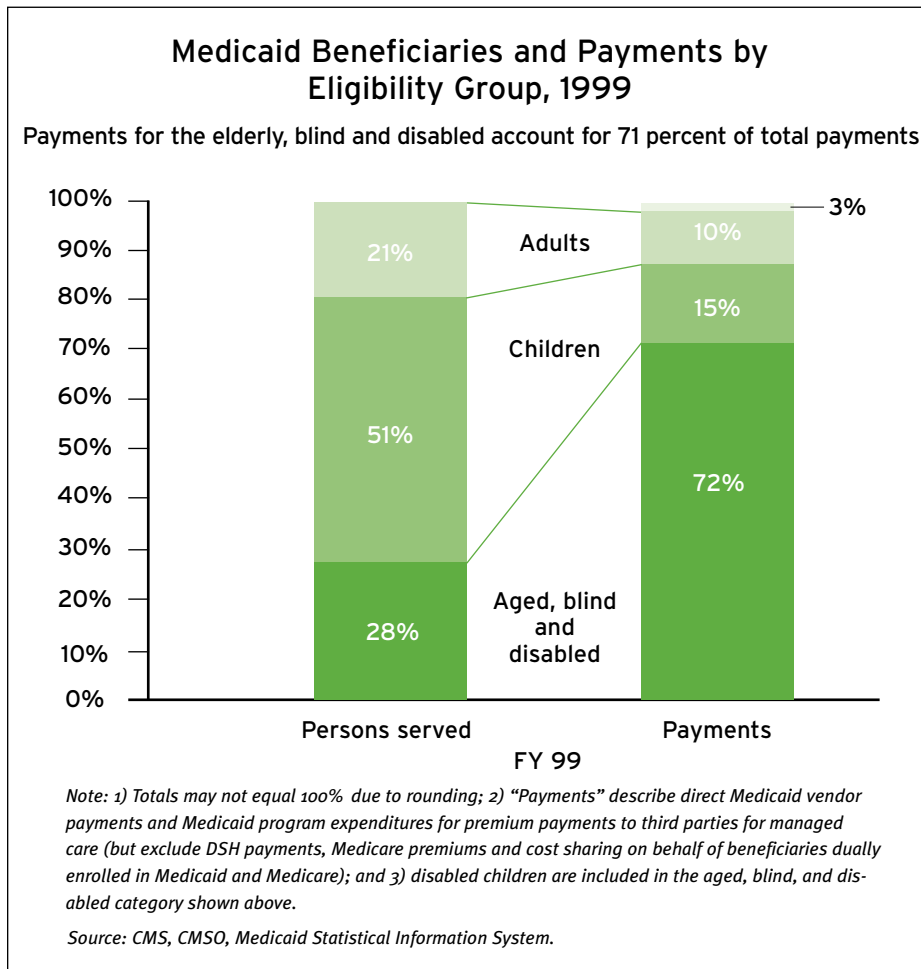


Figure 2. Medicaid eligibility vs. payments, 1999.¹³

a series of optional benefits that may be implemented by the states and receive federal matching funding.²⁹ Required services include inpatient hospital services, outpatient hospital services, and physician services and dental services for children. Optional benefits include optometrist services and eyeglasses, prosthetic devices, and dental services for adults.

Unfortunately, most states have decided not to provide adults dental services as a benefit. In March 2003, the Kaiser Commission on Medicaid compiled a report for the National Conference of State Legislatures on

state Medicaid adult dentistry benefits. This data is available on the Kaiser Commission website.³⁰ An update on this data, prepared for the National Conference of State Legislatures, revealed that in 2000, there were 14 states with full dental Medicaid benefits for adults. In 2005, there were only seven. In the same time frame, states with only emergency oral health services or no oral health services for adults rose from 20 to 26.³¹ Because of these state decisions, the vast majority of adult Medicaid recipients in the United States have inadequate or no dental benefits. In some states, there may be

funding for extractions as a treatment for dental emergencies. In other states, even this option is not available for our most vulnerable citizens. In these states, there are **no** dental services available for these populations.

Consequences of Inadequate Oral Health Funding for Adults Under Medicaid

Untreated dental disease leads to infection, pain, and even death. For millions of low-income aged, blind, or disabled Americans in states with inadequate or no dental benefits, suffering with untreated dental disease and infected mouths and bodies is the norm. Some of these individuals are slightly better off, yet they live in states where removing all of their teeth is their only option.³² Individual stories of neglect, pain, and suffering, however, are not the only consequence of this situation. There are significant economic consequences as well.

There are many situations where huge medical costs have resulted from the lack of available dental services. In Louisiana in 2003, a \$70 extraction would have saved an elderly patient 15 days in the hospital, including two days in an intensive care unit, and a \$35,000 medical bill.³² In California, a young autistic lady who was nonverbal began to act out and hit other residents of her community residential care facility. She was admitted to a locked psychiatric facility at a cost of \$150,000 per year to the State of California. Fortunately, it was eventually discovered she had dental problems. Once her dental problems were treated, her acting out behaviors ceased and she was able to return to her community. The Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry produced a moving video of these events.³³

Another economic consequence of the lack of Medicaid coverage for adult

dental treatment occurs when people turn to costly emergency room visits for treatment of dental pain and infection. In 1993, when Maryland eliminated Medicaid reimbursement to dentists for treatment of adults with dental emergencies, there were subsequent increases in medical costs. The rate of emergency room visits for dental problems rose by 12 percent.³⁴ A related study demonstrated that 2 percent of dental-related emergency department visits resulted in a hospital admission with a mean cost of \$5,793.³⁵

Less obvious to many people but of huge economic consequence, are the general health sequelae of untreated dental disease. There is increasing evidence of the association of dental disease, particularly periodontal disease, with general health conditions. Recent evidence has provided strong evidence of a causal link with certain conditions. The Association of State and Territorial Health Officials has hypothesized that providing dental care under Medicaid could lower costs for treating heart disease.³⁶ This conclusion was based, in part, on recent data linking the progression of atherosclerosis to the presence of bacteria that cause periodontal disease. This study indicated that the higher the levels of the periodontal disease-causing bacteria and the more teeth lost, the more likely people were to have thicker carotid arteries.³⁷ An earlier study demonstrated a correlation between tooth loss and carotid artery plaques.³⁸

In addition to heart disease, there is evidence of the link between poor oral health and many other diseases. According to the Centers for Disease Control and Prevention, the second-leading cause of infant mortality is premature birth/low birthweight.³⁹ The NIH was quoted as reporting that “as many as 18 percent of the 250,000 premature low-weight infants born in the United States each year may be

attributed to infectious oral disease” and several studies have shown that mothers with severe or widespread periodontal disease have a higher risk of preterm delivery.^{40,41} It has also been demonstrated that oral health problems are correlated with pneumonia. A study of nursing home-acquired pneumonia found that eight of 13 patients had bacteria in the lung genetically matched to

Another economic consequence of the lack of Medicaid coverage for adult dental treatment occurs when people turn to costly emergency room visits for treatment of dental pain and infection.

dental plaque from those patients. The authors concluded that dental plaque may be an important reservoir of hospital-acquired pneumonia.⁴² There is also an extensive literature on the relation between periodontal disease and diabetes that demonstrates that people with severe periodontal disease have more severe diabetes and a significantly greater prevalence of diabetic sequelae including stroke, transient ischemic attack, angina, myocardial infarction, heart failure, and intermittent claudication than did diabetic patients with minimal periodontal disease.^{43,44} Links have also been established between periodontal disease and other general health conditions such as stroke.⁴⁵⁻⁴⁸

The Importance of Preventing Chronic Diseases

In a 2003 report, “The Power of Prevention,” the CDC emphasized the importance of prevention in improving the health of the nation and reducing

health care costs.⁴⁹ It pointed out that five chronic diseases — heart disease, cancer, stroke, chronic obstructive pulmonary disease (e.g., asthma, bronchitis, emphysema), and diabetes — cause more than two-thirds of all deaths each year. The number of deaths alone, however, fails to convey the full picture of the toll of chronic disease. In the same report, the CDC indicated that more than 125 million Americans live with chronic conditions, and millions of new cases are diagnosed each year. These serious diseases are often treatable but not always curable. Add to these diseases the presence of chronic untreated oral infection and the suffering and cost increases. These oral infections are, however, both treatable and preventable.

Chronic disease leads to disability and diminished quality of life. The CDC report on prevention pointed out that the United States spends more on health care than any other country in the world. In 1980, the nation’s health care costs totaled \$245 billion, an average of \$1,066 for each American. In 2001, the total health care cost in the United States was an astounding \$1.4 trillion.^{49,50} This is an average of \$5,035 for each American. It was indicated that chronic disease accounts for roughly 75 percent of health care costs each year. The estimated cost of cardiovascular disease and stroke in 2003 was \$351.8 billion. Of this amount, \$209.3 billion was due to direct medical costs and \$142.5 billion to lost productivity.^{49,51} The estimated cost of diabetes in 2002 was \$132 billion. Of this amount, \$91.8 billion was due to direct medical costs and \$39.8 billion to lost productivity.^{49,52}

In 2004, the portion of total health expenditures contributed by Medicaid was \$298 billion and the proportion contributed by Medicare was \$284 billion.⁵³ In that year, the federal government contributed 60.2 percent of the total Medicaid expenditures and the



states contributed 39.8 percent.⁵⁴ Given that people who are aged, blind and disabled have accounted for 72 percent of the total U.S. Medicaid payments, the total Medicaid expenditures for the ABD population can be estimated to be about \$215 billion annually.¹³ Also, as described earlier, Medicaid dual-eligible ABD individuals constitute about 22 percent of the total Medicare enrollees and can therefore be expected to be responsible for about \$64 billion in Medicare expenditures annually. If it were possible to save only 0.6 percent of these Medicaid and Medicare expenses by providing oral health services for these groups, this would result in a reduction in expenditures of \$1.7 billion with a \$1.2 billion expenditure reduction for the federal government and a \$0.5 billion reduction for the states. As can be seen from the subsequent analysis, this is more than enough savings to pay for dental coverage for adult ABD individuals in every state and improve funding for the critically underfunded children's oral health program.

As an example of the cost effectiveness of providing dental services to reduce general health costs, Offenbacher et al. estimated that 18.2 percent of all preterm low birthweight births may be attributable to periodontal disease in pregnant women, and that if these infections could be eliminated, approximately 45,500 preterm low birthweight newborns a year could be avoided nationally, with a concomitant decrease in neonatal intensive care unit costs of \$22,000 per baby, or almost \$1 billion.⁵⁵ California's Medicaid program used an extrapolation of this analysis to the number of live births financed by the program to estimate that the state and federal governments would collectively save more than \$29 million annually by providing several diagnostic and periodontal disease prevention and treatment benefits for pregnant women.⁵⁶

It is clear there are staggering national expenditures being made to treat medical conditions of low-income individuals that may be caused, in part, by a lack of access to oral health services and consequent poor oral health. It is also clear that providing oral health services and preventing oral diseases can save significant general health expenditures.

The Special Care Dentistry Act

Special Care Dentistry, the largest national organization devoted to improving the oral health and well-being of people with special needs, has

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proposed the Special Care Dentistry Act. The current version of this national legislation and a fact sheet for policy makers is available on the Special Care Dentistry website: www.SCDonline.org.⁵⁷ This proposed legislation is endorsed and supported by all major dental organizations as well as an impressive list of advocacy groups. The Special Care Dentistry Act addresses the major health disparities caused by the lack of dental services available for low-income ABD populations by expanding federally required Medicaid coverage to include the nation's low-income aged, blind and disabled populations and supporting states by increasing federal funding for Medicaid oral health ser-

vices by creating a 90/10 federal/state match (FMAP of 90 percent). The Special Care Dentistry Act would not only help relieve the tremendous amount of pain, infection, and suffering experienced by our nation's low-income ABD populations, it would also be a cost-effective means of addressing the staggering national Medicaid general health care expenses for these populations. The Act also increases the federal/state match for the children's dental program to a 90/10 federal/state match.

The cost of the Special Care Dentistry Act was estimated by analyzing reports from the California Department of Health Services about Medi-Cal expenditures in 2004 and extrapolating this data to a national system. California provides fairly comprehensive Medicaid adult dental coverage and is therefore a model for the costs to be expected if the Special Care Dentistry Act were adopted. The California Medicaid dental program is referred to as Denti-Cal. Data was obtained from the Department of Health Services from an analysis of the department's MIS/DDS database about eligibility, users and dental expenditures by aid code and age in 2004.⁵⁸ Aid codes represent Medicaid categories of eligibility. This data was used to determine the number of eligibles, users, and expenditures for Medicaid adult dental services for the total and ABD populations. **Table 1**, line 4 shows that the adult ABD population represented 25 percent of the users of dental benefits and used 27 percent of the total Denti-Cal expenditures. **Table 2**, line 2 shows that the ABD adults represented 21 percent of the population eligible for dental services and 30 percent of them used dental services in 2004 (**Table 2**, line 5). Adult ABD eligible individuals averaged \$115.90 in dental expenditures during 2002 (**Table 2**, line 6).

The California data was used to estimate national users and expendi-

Table 1**California Medi-Cal Dental Program (Denti-Cal): Users and Expenses 2004⁵⁸**

Description	Users	%	Expenditures	%
1. Total users, all ages	1,676,749	100%	\$571,288,289	100%
2. ABD users	450,118	27%	\$167,863,490	29%
3. % of total users who are adults		43%		71%
4. ABD adult users	412,094	25%	\$156,650,392	27%
5. Total cost of Denti-Cal children's program			\$299,315,157	52%

Table 2**California Medi-Cal Dental Program (Denti-Cal): Eligible Individuals 2004^{58,19,20}**

Description	Individuals/\$	% of Total	Notes
1. Total eligible individuals	6,933,625	100%	
2. Eligible ABD individuals	1,470,708	21%	
3. Eligible individuals 21 and older (adults)	3,154,114	45%	
4. Eligible ABD adults	1,351,577	19.5%	
5. % of eligible ABD adult who use services		30%	Table 1, line 4 (users)/line 5
6. Annual expense for ABD-eligible adult	\$115.90		Table 1, line 4 (\$)/line 5

tures if there was adult dental coverage in all states as proposed in the Special Care Dentistry Act. Data from CMS was used to obtain the projected number of total individuals and ABD individuals who were eligible for Medicaid services in 2004, the latest year for which data was available.¹⁴ By applying the percent of eligible adults who were in the ABD population (45 percent) and the expenditures per ABD adult in California, it is possible to estimate that providing dental coverage for all ABD adults nationally would cost about \$636 million annually (see **Table 3**, line 4).⁵⁹ However, these are not all new expenses. States like California already provide these

services. **Table 3**, line 5, uses the current expenditure/eligible ABD adult in California (**Table 2**, line 6 (\$)), the percent of Medicaid eligibles who are ABD adults (45 percent), and the total eligibles in other states that provide adult benefits (Conn., N.J., N.Y., N.D., Pa., Wis.) to estimate that there is currently \$331 million being spent on adult ABD benefits nationally (**Table 3**, line 5).^{59,17,31} This is a conservative estimate because it does not count expenditures in states with limited adult dental programs. The federal share of these existing expenses if the FMAP was increased from 60.2 percent to 90 percent would be \$99 million (**Table 3**, line 6). Adding dental ben-

efits for the adult ABD population in other states would add \$305 million in new expenses (**Table 3**, line 7). The new federal share of this coverage with the FMAP of 90 percent is \$275 million (**Table 3**, line 8). This brings the total new federal expenditures for adult ABD coverage to \$374 million (**Table 3**, line 9). Finally, an estimate is added to the cost of increasing the federal share of the current children's program if the FMAP goes to 90 percent for that program as well. The California Medicaid population can be calculated to be about 15 percent of the total Medicaid population.⁶⁰ If the cost of the California children's program is divided by 15 percent and



Financing

the increased FMAP applied, there is a new federal cost of \$595 million for increasing the FMAP for the children's program to 90 percent (Table 3, line 11). This brings the estimate for the total new federal cost for the Special Care Dentistry Act to about \$968 million (Table 3, line 12). This cost represents less than 0.2 percent of the current total federal expenditures of

\$589 billion for health care under the Medicare and Medicaid programs.⁵³

In order to estimate the true cost of building the national infrastructure for ABD adults to receive Medicaid dental benefits, it is also necessary to estimate the savings in medical costs that would result from these vulnerable populations having access to dental services across the nation. While it

is impossible to predict precisely what the savings in medical costs would be, the data presented in this article suggests that treating and preventing oral infections would indeed decrease general health expenditures through reduced reliance on emergency room care and very expensive hospitalizations for serious consequences of untreated dental infections. It is also

Table 3

National Eligible, Users, and Estimated Expenses¹⁴

Description	Individuals/\$	% of Total	Notes
1. National total Medicaid-eligible individuals ¹⁴	42,400,000	100%	
2. National ABD-eligible individuals ¹⁴	12,000,000	29%	
3. Estimated national ABD-eligible adults	5,490,000		Line 2 x 45% ⁵⁹
4. Estimated national cost for ABD-eligible adults	\$636,301,838		Line 3 x Table 2, line 6 (\$)
5. Estimated current expense for ABD adults	\$330,818,708		Table 2, line 6 (\$) x Table 2, line 5 (%) x total eligible in states with adult dental benefits (14,642,625) ^{17,31}
6. Increased federal share of current expense if FMAP goes from 60.2% to 90%	\$98,583,975		Line 5 x 29.8%
7. New costs for ABD-eligible adults	\$305,483,130		Line 4 less line 5
8. Federal share of new costs for ABD adults if FMAP is 90%	\$274,934,817		Line 7 x 90%
9. Increased federal cost for adding adult dental coverage for ABD population	\$373,518,792		Line 6 plus line 8
10. Estimated cost of children's Medicaid dental services	\$1,995,434,380		Table 1, line 5 (\$)/California share of national Medicaid population (15%) ⁶⁰
11. Increased federal share of estimated cost for children's coverage if FMAP goes from 58% to 90%	\$594,639,445		Line 9 x 29.8%
12. Total new federal cost for SCD Act	\$968,158,237		Line 8 plus line 10

likely that improved oral health would reduce the incidence of the numerous general health conditions known to be caused or exacerbated by oral infections. As described earlier, a conservative estimate of a 0.5 percent decrease in medical expenditures would result in a cost savings of \$1.4 billion for the total Medicaid program with about \$1 billion of that amount constituting federal savings. This is enough to pay for the cost of national Medicaid dental coverage for adults who are aged, blind, and disabled, our most vulnerable citizens, and reform Medicaid oral health programs for vulnerable children.

Summary

People with low incomes who have disabilities or are elderly have the worst dental conditions of any population in the United States. While every state defines an aged, blind, or disabled population group within its Medicaid program, few states provide dental services for adults in this group. This results in widespread pain, suffering, and infection for these individuals. In addition, there is increasing evidence that poor oral health, particularly periodontal infections, can contribute to a number of general health conditions, all with significant costs for our country. Given that the ABD population accounts for the majority of Medicaid general health expenditures, there is an opportunity to reduce the suffering and save significant Medicaid expenditures.

The Special Care Dentistry Association has proposed legislation, the Special Care Dentistry Act, to provide Medicaid dental benefits for ABD adults nationally and reform Medicaid oral health programs for vulnerable children. This proposed legislation is endorsed and supported by all major dental organizations as well as an impressive list of advocacy groups. A

projection of the costs of implementing this legislation was performed using data from the California's Medicaid dental program. The new federal dollars required to implement this legislation would be less than \$1 billion. This amount would be offset by a conservatively estimated 0.5 percent reduction in costly emergency room and hospital charges for the treatment of serious dental problems, as well as a reduction in the prevalence and severity of several general health conditions.

Treating and/or preventing oral infection and disease for the ABD populations in our country will significantly reduce overall health care costs, improve quality of life, and end needless suffering for America's most vulnerable citizens. Treating and/or preventing oral infection and disease for the aged, blind, and disabled population simply is the right thing to do. **CDA**

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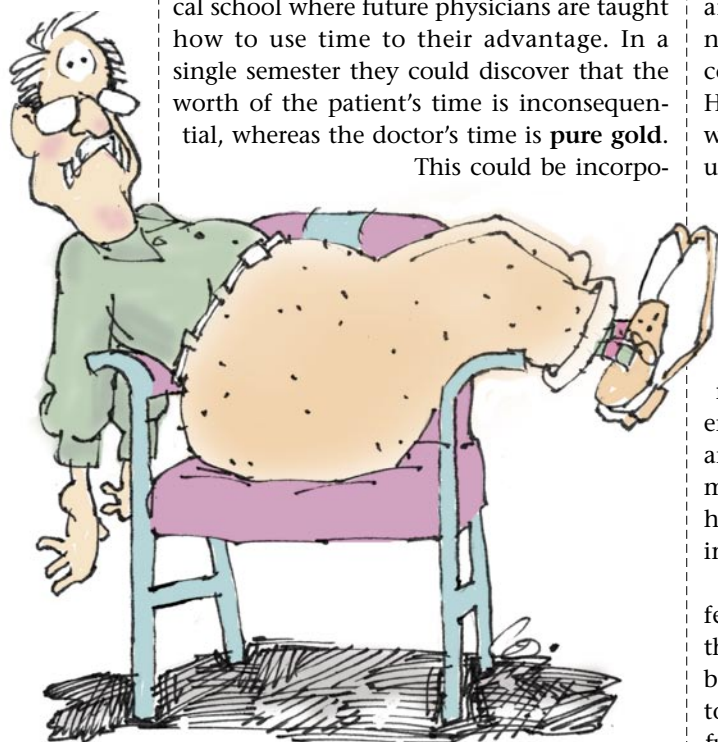
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'Doctor Time' — The Power Begins Here



What is it with
these guys? Like,
he's not even
a surgeon —
how many
emergencies can an
internist have?



"Taxi driver" will get you on your way
after he has finished today's
New York Times crossword puzzle....

One hour. One hour and a quarter. Seventy-five minutes I've squirmed in my doctor's reception room, first one cheek, then the other. The eclectic reading material that consisted of *Family Circle*, *Redbook* and a three-week-old copy of *Time* was exhausted in the first half-hour. I now know more than I ever wanted to about estrogen replacement therapy and could make a cherry pie, Billy Boy if I had to.

What is it with these guys? Like, he's not even a surgeon — how many emergencies can an internist have? Ten o'clock, the receptionist said when I called for the appointment. Apparently this is doctor time and has no counterpart in the real world except wife time, which has to do with shopping or getting ready to leave the house.

I haven't actually seen this in the curriculum, but I believe there is a course in medical school where future physicians are taught how to use time to their advantage. In a single semester they could discover that the worth of the patient's time is inconsequential, whereas the doctor's time is **pure gold**.

This could be incorpo-

rated in the course content of "The Waiting Room — The Power Begins Here."

In what seemed like the amount of time it took me to finish the seventh grade, but is only 10 minutes doctor time (one-and-a-half-hours real time), a squarish woman sporting some Nautilus-inspired figure enhancements opened the door to the inner sanctum. "Mr. Horseman, will you please come this way." In some hipper offices I've bivouacked in, a comely miss barely out of puberty addressed me as Robert and seemed pleased when I blurted, "Call me Bob, Janey," indicating that the three-generation difference in our ages was no barrier to our relationship.

Miss Muscle Beach led me right onto a scale, fiddled with the weights for a while and announced my gross tonnage to the world at large, ignoring my protests that my wingtips alone weigh five pounds apiece and my loose change, pocket knife, and nail clippers would account for another couple of pounds at the least. "Sure, Mr. Horseman," she said crisply, writing down what the scale had wrongly estimated and ushered me into yet another room, known in medical parlance as a "cubicle."

Only the medical profession has a series of waiting rooms, each one smaller and more Spartanly appointed than its predecessor. This one would be considered appropriate for solitary confinement in any federal pen if the ambience were just a bit more cheerful. There are no windows for one thing, so after the maze of hallways we negotiated arriving here, it's difficult to place myself spatially in the world as I used to know it.

This is the Motel 6 of treatment rooms featuring a little stool with six casters for the doctor to scoot around on and a square backless bench that I assumed was for me to park on while I scanned the bare walls, furtively looking for an escape route and calculating how many years I have left of my sentence. There was one of those tables that physicians acquire when they first go into

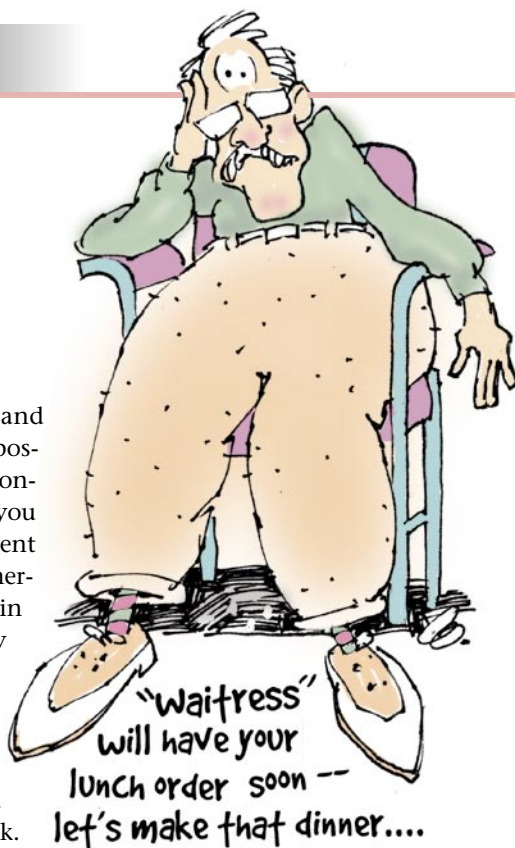
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practice, covered in brown vinyl and then draped with that crinkly disposable wax paper so you wouldn't wonder about what the patient before you was here for. The magazine assortment provided in Stalag 2 is even less generous and the issues are older than in Holding Pen No. 1. That left only a few doctor accessories to hold my attention. A jar with tongue depressors, another with cotton balls, and one with a few inches of isopropyl alcohol were arranged on the countertop next to the sink. Adjacent was the little triangle-shaped mallet for reflex testing and that sophisticated flashlight for peering in your ear and up your nose. There also was a rubber glove and a tube of KY jelly for what purpose I can't imagine. They seem to have done away with the leeches.

I mentally compared my own treatment room with its \$75,000 worth of dental equipment to the monk-like austerity of my current cell. If I wasn't ill when I came in here, that alone would induce a bout of clinical depression. The nurse abruptly returned, probably from lunch and interrupted my reverie with the command to open my mouth for the purpose of inserting a thermometer. "I'll be back in a moment," she lied.

During the next 15 minutes of restlessly pacing in random patterns about my little enclosure, I rotated the thermometer from side to side like an all-day sucker and took it out occasionally to see how I was doing. You'd think, after 200 years, that somebody would have made an oral thermometer that could be read by people with normal vision. This one seemed permanently affixed at 98.6, what else? I was tempted to throw a little drama into the proceedings by holding a Zippo under the thing for a few seconds or dunking it in the alcohol and blowing on it, but the arrival of Ms.



Nightingale thwarted me.

"Doctor will be with you in a moment," she chuckled, pleased that everything was going according to the Master Plan of Patient Subjugation. And sure enough, in less time that it took to ratify the 18th Amendment, The Man Himself entered, wearing a stethoscope about his neck like the sommelier in an expensive bistro would display his key to the wine cellar.

"Take off your shirt," he said, cutting right to the chase and skipping the part about being devastated for keeping me waiting and begging my forgiveness. All the snippy remarks I had been rehearsing were tempered by lack of opportunity to express them between the tongue blade invasion and the up-your-nose scope. Besides, you just can't tear into The Doctor for not having mastered the art of patient management. Getting him annoyed at you is certainly not in your best interests, even with the KY jelly. Probably Hippocrates got the idea for his oath from hearing a few of those from his waiting patients.

You go see the doctor, you wait, and you do it in special rooms built just for that sort of thing. That's the way it works; that's tradition. If you want to run the risk in your own practice of

appearing not busy and important, and perhaps flaunting years of medical protocol, you might try considering the radical idea that patients' time is as critical to them as yours is to **CDA**.