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Journal

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Journal

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FEATURES

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To Teach, Perchance to Learn

ALAN L. FELSENFELD, DDS

The completion of my term as the editor of the *Journal of the California Dental Association* several years ago gave me the opportunity to reflect on an experience that very few of us have enjoyed. I was able to immerse myself in an area that was challenging, allowed me the opportunity to make new friends and, unfortunately, irritated some of our members. It was a time of growth, development and learning. It is the learning that I believe will be most resonant as I consider that experience.

As part of the process of being selected, I was interviewed by a select committee of our members and outside consultants. This was not unexpected and all of us interested in taking the position were asked to participate. To be sure, the other candidates prepared for the process by crystallizing their thoughts on those topics deemed important enough to be discussed. I had done the same.

It was my feeling the questions were fair, and I was prepared to discuss those issues that were raised. However, I was surprised, and, in retrospect, quite unprepared in my thinking when one of the interviewers asked if we had a crisis in dentistry. Now my definition of crisis is when there is a situation that is looming close and the outcome of that situation can result in death, severe destruction, or great harm to people or objects. It represents instability with the call for immediate action to prevent an adverse outcome. Clearly a car out of control on the freeway and careening toward you would qualify, as would the loss of your job or the severe illness of a spouse or loved one. All of my thinking relative to crisis related to acute, rapid onset with immediate consequence events.

To watch the residents or students transition from inexperienced first-year students to young practitioners is gratifying.

If we think about our profession, there are myriad problems. Clearly the incidence of dental disease that is still rampant is important. Changing practice patterns, insurance reimbursement and care management, diversity within our ranks, access to care, regulation and legislation that influence the way we work all affect our day-to-day activities and our careers. But none of these are acute. There are no looming disasters that can be linked to any of these types of problems that we face and deal with on a regular basis. It did not appear to me that any of these issues would have devastating effects on the profession. We have seen changes in the past and have coped and grown from them. I answered "No; there was no crisis in dentistry, just chronic problems." I was wrong.

How silly was I not to recognize that as a full-time academic that we were facing a crisis in the education of our students and residents.

There is an insidious but definite downtrending in the number of individuals who are staying in academics. Retirement as well as the lure of lucrative private practices without the patina of institutional oversight have drawn many of our teachers out of the university and into the community. Equally damaging is the lack of interest on the part of our young graduates to pursue full-time careers in education. It is understandable relative to debt loads and the desire to practice the skills that have been acquired in training, but regardless of the reasons, we are not seeing significant interest in academic careers.

The American Dental Education Association reports there are approximately 400 open positions for academicians in our schools. With about 55 institutions, that means on average each school is missing approximately eight full-time teachers. The problem is immediate, but the effect is long term and significant. The use of part-time faculties who aid in the education of our students works to an extent. Some of the newer dental schools have been using borrowed faculty to teach the basics of their curriculum. However, without full-time mentor-teachers it is difficult to establish strong relationships with students and residents.

There is a slight, yet insignificant, trend for midcareer professionals, such as I was, to leave their practices to answer the call for academic careers. It is a difficult decision to make while in practice; we have a mature way of life, earn good income, and control our environment to a great extent. To trade that lifestyle for a school career means budgetary concerns impact your ability to do things, earnings usually are less than in the private sector, and your time is no longer your own. This becomes onerous for an individual who is used to controlling his or her environment.

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31% of baby boomers never go to the dentist (or only go in an emergency)[1]

75% of U.S. adults experience some degree of dental fear[2,3,4]

15% of the population declines necessary dental treatment because they fear oral injections[5]

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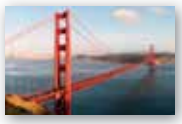

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[1]Academy of General Dentistry. (2007). National survey reveals baby boomers miss links between oral and overall health. Retrieved May 30, 2008, from: http://www.agd.org/support/articles/?ArtID=1287

[2]Harkavy, J., Kleinknecht, R.A., McGlynn, F.D., & Thorndike, R.M. (1984). Factor analysis of the dental fear survey with cross-validation. *J Am Dent Assoc.* 108 (1): 59-61.

[3]Getka, E., Glass, C.R. (1992). Behavioral and cognitive-behavioral approaches to the reduction of dental anxiety. *Behavior Therapy.* 23 (3): 443-448.

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[5]Hamilton, J.G. (1995). Needle phobia: A neglected diagnosis. *Journal of Family Practice.* 41: 169-175.

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EDITORIAL, CONTINUED FROM 286

But there are several advantages to this change, which are difficult to quantitate. To see a young dental student "get it" as you demonstrate and teach procedures is rewarding. To watch the residents or students transition from inexperienced first-year students to young practitioners is gratifying. If you publish or do research, your work exists in perpetuity. Most important, and a sense that I have seen reflected by many of my colleagues, is that you are constantly learning by teaching.

Most of us will not leave our established practices and undertake a full-time teaching position. Even if you are able to participate on a part-time basis, there are rewards for you and your students. Growth as well as the accumulation of new and different experiences will make you a better clinician. While the dental schools are clustered in only three areas of this state, there are general dental and specialty residences in numerous locations. All of them can use your help and clinical acumen.

I am smarter and a better clinician today than I was before I entered academics. My perspectives on patient care have matured. All of us believe that we are good at what we do and teaching can only reinforce that feeling. Give back to your profession. It has enabled you to do well. Think about sharing that with others. Your legacy might just be that you brought someone else to the level that you enjoy. ■■■■

Alan L. Felsenfeld, DDS, was editor for the Journal of the California Dental Association *from November 2004 to November 2008. He currently is CDA's speaker of the house.*

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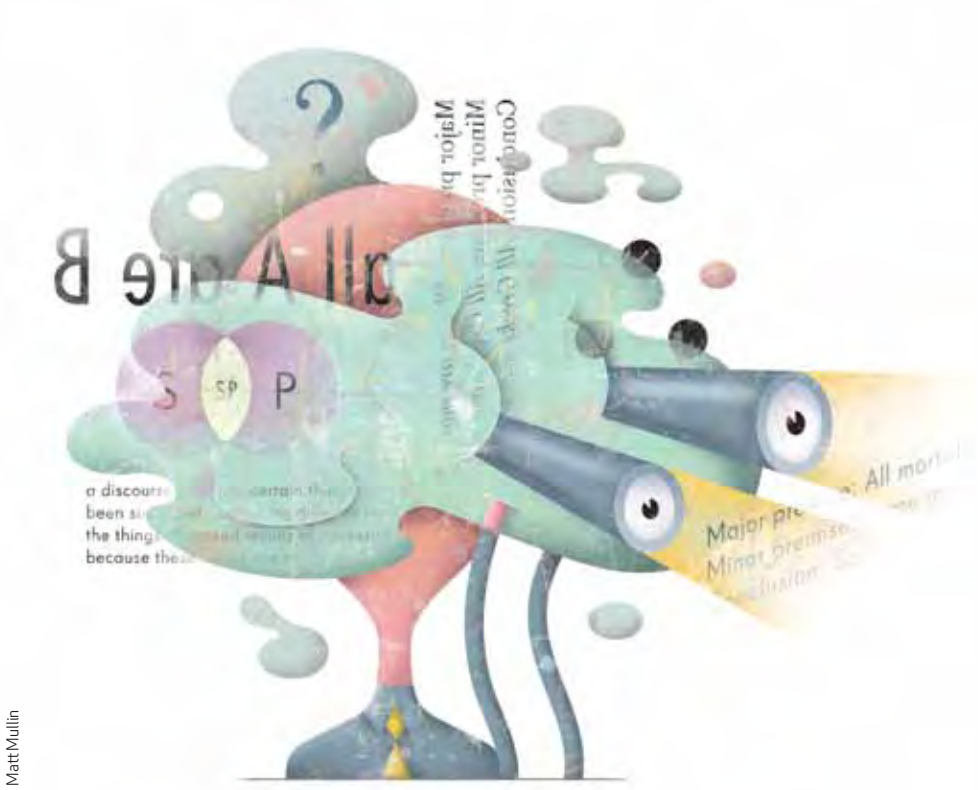

Matt Mullin

The Practical Ethics Syllogism

BY DAVID W. CHAMBERS, PHD

It is an ethical absolute, enshrined in the Ten Commandments: Thou shalt not kill. There is something reassuring in such great rules. "Always put the patients' interests first" and "First, do no harm." Folks will surely recognize us as ethical if we claim we don't lie, we refrain from coercing others, and we do unto others as we would be done by.

The problem is that this level of ethics is in the clouds; when we bring it down to where we normally live, things become more nuanced. Moses found this out. Very shortly following the part about "Thou shalt not kill" being carved in stone we find "For every one that curseth his father and his mother shall be surely put to death (Leviticus 20:9) and a little farther on in Ecclesiastes, "To everything there is a season … A time to kill and a time to heal." Most

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Clarification

V. Kim Kutsch, DMD, lead author of "New Directions in the Etiology of Dental Caries Disease," which appeared in the October 2011 issue of the *Journal of the California Dental Association*, is the CEO of Oral BioTech, which manufactures Cari Free. This disclosure was omitted from the original publication.

Smokers Have More Dental Problems but Visit Dentist Less

U.S. smokers are more than twice as likely as nonsmokers to have oral health problems, but much less likely to visit the dentist. Those are the findings of a report released by the U.S. Centers for Disease Control and Prevention that looked at 2008 survey responses from more than 16,000 dentate adults ages 18 through 64.

Although 35 percent of smokers reported having three or more dental problems – from stained teeth to jaw pain, toothaches, or infected gums – 20 percent said they had not been to a dentist in at least five years, the study found.

The No. 1 reason smokers said they avoided the dentist, the authors noted, was cost; 56 percent of current smokers, 36 percent of former smokers, and 35 percent of never smokers said they could not afford treatment or did not have insurance.

Compared to people who never smoked, current smokers are four times more likely to develop oral conditions, such as mouth cancers, gum disease, and cavities.

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Diabetes Can Be Detected Using Blood From Periodontal Disease

Oral blood samples may identify diabetes presence as accurately as finger stick sampling, an NYU nursing-dental research team has found. According to the study, oral blood samples taken from deep pockets of periodontal inflammation can be used to measure hemoglobin A1c, which is widely used to test for diabetes.

As stated in guidelines set by the American Diabetes Association, an A1c reading of 6.5 or more indicates a value in the diabetes range.

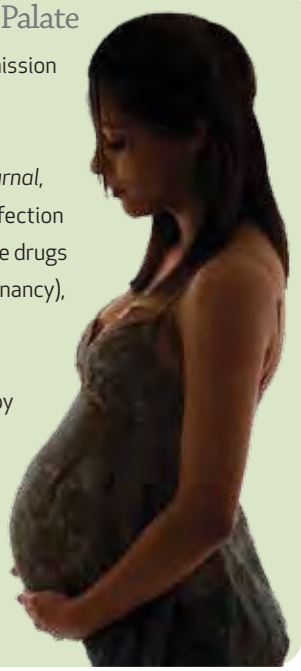
According to a news release, the NYU research team's study was funded by an NYU Clinical and Translational Science Institute grant awarded in 2011. The researchers evaluated hemoglobin A1c levels in paired samples of oral and finger stick blood taken from 75 patients with periodontal disease at the NYU College of Dentistry. The researchers found, according to a news release, that a reading of 6.3 or greater in the oral sample corresponded to a finger stick reading of 6.5 in identifying the diabetes range, with minimal false positive and false negative results. The findings were published in an issue of the *Journal of Periodontology*.

"In light of these findings, the dental visit could be a useful opportunity to conduct an initial diabetes screening – an important first step in identifying those patients who need further testing to determine their diabetes status," the study's principal investigator, Shiela Strauss, PhD, associate professor of nursing and co-director of the Statistics and Data Management Core for NYU's Colleges of Nursing and Dentistry, said in a news release.

Strauss added that some patients may find the oral blood sampling in a dentist's office to be more comfortable than finger stick sampling and that there is "an urgent need to increase opportunities for diabetes screening and early diabetes detection."

Further research is needed on oral blood hemoglobin A1c testing using a broader group of subjects and dental practice sites.

Possible Links Between Antiretroviral Drugs and Cleft Lip and Palate



Though HIV-positive pregnant women have been able to protect against the transmission of the disease to their babies with the use of antiretroviral drugs during pregnancy, this preventive measure may come with potential risks to offspring.

According to a study recently published in an issue of *Cleft Palate–Craniofacial Journal*, the introduction of antiretroviral drugs has been proven a crucial turning point in HIV infection therapy, significantly reducing morbidity and mortality. In addition, though none of these drugs has yet been classified in the Food and Drug Administration's Category A (safe for pregnancy), the antiretroviral drug therapy has been proven successful in reducing the risk of HIV transmission from mother to child – from 15 to 25 percent to less than 1 percent.

The new study explores possible links between the use of antiretroviral drug therapy during pregnancy and birth defects, such as cleft lip and palate, in newborns.

To estimate relative risk, the study used "reporting odds ratios," which assesses the risk of a particular outcome if a certain factor is present. The authors analyzed five years of publicly available data from the FDA's Adverse Events Reporting System (AERS) and found a total of 26 events of cleft lip and palate related to seven antiretroviral drugs.

Chemists Produce Innovative Glass-Ceramics for Dentistry

Glass chemists from the Otto-Schott-Institute for Glass Chemistry at Jena University (Germany) may have discovered a new material for use in dentistry after recently succeeding in developing a new type of glass-ceramic with a nanocrystalline structure. This material offers the optical characteristics of natural teeth and provides enormous strength.

"What the natural tooth enamel has to endure also goes for dentures, inlays or bridges," glass chemist Christian Rüssel, MD, said in a news release. Ceramic materials used so far are not appropriate for bridges as the material is not strong enough, according to researchers.

"We achieve a strength five times higher than with comparable denture ceramics available today," Rüssel said in a press release, referring to the new glass-ceramic.

To be considered for dentures, materials used should be optically similar to that of natural teeth and it is not just the color, but the shade as well, that is important. "The enamel is partly translucent, which the ceramic is also supposed to be," Rüssel said.

To achieve these characteristics, researchers produce the glass-ceramics following a precise temperature process. All of the basic materials are first melted at around 1,500 degrees Celsius, then cooled and chopped finely before being melted and cooled once more. To finish, nanocrystals are generated by controlled heating to about 1,000 degrees Celsius – a procedure that determines the crystallization crucial for the strength of the product, Rüssel explained.

SYLLOGISM, CONTINUED FROM 291

people would go along with killing in self-defense. They would also coerce a child from running into traffic and draw some sort of a line around putting the patients' interests first if that involves unhealthy practices or free treatment.

This tension between the abstract and the practical is known as the practical ethics syllogism.

In situations where Rule X is applicable, do A.

This is a situation where Rule X is appropriate.

Therefore do A.

When finished treatment by specialist, return patient to GP.

This patient may or may not need specialty care.

Therefore?

Cases of suspected child abuse must be reported by health professions.

It is hard to tell exactly what caused these bruises.

Therefore?

The ethical principle is always honored as true without exception. But the practical application of the principle is open to interpretation. In our court system, judges state the law but juries determine its applicability in specific cases.

Here is how some philosophers approach the problem. Interpretation is where the action is, and it is dependent on context and group membership. What it means to be a responsible adult is to have internalized the interpretative norms of the community. When a colleague is ready for a position in organized dentistry, you will know by the way he or she sees the issues. I offer no apologies for faculty members who would deny a degree to a student who is a technical wizard but does not embody the values of the profession.

Becoming a moral dentist is mostly about being able to spot problems and interpret them the way one's colleagues do. That is why most dental school courses in ethics now teach using cases.

The Nub:

1. It is more important to read your colleagues than to read books about ethics.
2. Too little consensus in a profession about how to interpret situations is bad; so is too much.
3. The hall talk about claims made in C.E. courses is more important than the before and after slides.

David W. Chambers, PhD, is professor of dental education, Arthur A. Dugoni School of Dentistry, San Francisco, and editor of the Journal of the American College of Dentists.

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CAUTION

FDA Investigating Hand-Held X-ray Devices

The U.S. Food and Drug Administration recently announced that it is warning dental and veterinary professionals to not purchase or use certain potentially unsafe hand-held dental X-ray units. According to a news release, the FDA is concerned that these devices may not be safe or effective and could expose the user and the patient to unnecessary and potentially harmful X-rays.

The units, sold online by manufacturers outside the United States and directly shipped to U.S. customers, have not been reviewed by the FDA and do not meet FDA radiation safety requirements. The FDA took action after being alerted by the Washington State Department of Health that tests on a device purchased online revealed it did not comply with X-ray performance standards.

The FDA said in the news release that "no adverse events" had been reported but that it is concerned the devices "could be dangerous due to unnecessary radiation exposure."

A hand-held dental X-ray unit is a small, portable device that is intended for dental X-ray examinations. "Health care professionals using these devices should verify they are purchasing and using those that have been reviewed and tested to meet FDA's standards," Steve Silverman, director of the Office of Compliance in the FDA's Center for Devices and Radiological Health, said in the news release.

To ensure this, the FDA is advising users to:

- Verify the presence of required labels on the device;
- Ask vendors whether the device has been reviewed and cleared by the FDA;
- Access the FDA Medical Device Approvals and Clearances searchable database to verify that the X-ray unit has been cleared by the FDA; and
- Contact their state regulatory agency if they become aware of a device that may be hazardous or does not meet the FDA's requirements.

Black Raspberries Help Ward off Oral Cancer

Anthocyanins, powerful antioxidants found in black raspberries, may suppress the conversion of precancerous to cancerous cells, according to a study funded by the Ohio State University Center for Clinical and Translational Science.

Susan Mallery, DDS, PhD, a professor in the College of Dentistry at OSU and Oral Pathology Consultant at the Ohio State University and James Cancer hospitals, has dedicated nearly three decades to studying new strategies for preventing oral cancer, which is responsible for more than 7,000 deaths each year. Treatment of oral cancer relies on removing cells before they turn cancerous, but as many as one-third of all patients will experience a recurrence within a year, according to OSU CCTS.

In 2003, Mallery started investigating a range of agents, from anti-angiogenesis drugs to natural products, to identify new therapeutics to suppress the conversion of precancerous to cancerous cells. Her first major development was the creation of an oral gel containing anthocyanins as study results showed that the gel, when applied directly to the mouth, would suppress genes associated with functions that allow cancerous cells to grow, thus diminishing the risk for recurring lesions.

In 2009, Mallery and her team received funding for a project aimed at establishing a way to treat precancerous lesions directly in the mouth and preventing recurring lesions. The research team turned to fenretinide, a decades-old breast cancer treatment, and developed a first-of-its kind patch that could stick to the inside of the mouth, delivering a steady therapeutic dose of fenretinide directly on the lesion.

Genetic Variation Plays Role in Risk of Osteoporosis Drug Complication

A genetic variation that raises the risk of developing serious necrotic jawbone lesions in patients who take bisphosphonates has been identified by researchers at the Columbia University of Dental Medicine, according to a news release. The findings, published in the online version of the journal *The Oncologist*, could lead to a genetic screening test to determine who can safely take bisphosphonates, a common class of osteoclastic inhibitors.

Approximately 3 million women in the United States currently take oral bisphosphonates to help prevent or treat osteoporosis. In addition, intravenous bisphosphonates are widely used in oncology to control bone metastasis and hypercalcemia, the report stated.

Painful and hard-to-treat bone lesions are often a result of osteonecrosis of the jaw, or ONJ, which can eventually lead to loss of the entire jaw. Of those taking bisphosphonates, ONJ tends to occur in those with dental disease or those who undergo invasive dental procedures, the news release said.

Studies have suggested that genetic factors play a major role in predisposing patients to ONJ. Further examining this question, the researchers performed genome-wide analyses of 30 patients taking bisphosphonates who had developed ONJ and compared them with several bisphosphonate users who were disease-free.

Dentists Overprescribing Antibiotics in Children

Using a sample of general and pediatric dentists, a recent study showed that most dentists are likely overusing antibiotics in children. According to an article published in the *Journal of the American Dental Association*, researchers recently conducted a survey and found a low adherence to professional prescribing guidelines.

The study used a cross-sectional design to examine the use of antibiotics by general and pediatric dentists in the management of odontogenic infections in children. The authors surveyed 154 North Carolina dentists using a questionnaire format that consisted of five clinical case scenarios to which the dentists specified how they would treat the hypothetical cases.

According to the report, the first theoretical scenario presented a 9-year-old patient with a deep carious lesion on the mandibular right primary second molar. Dentists were asked to indicate the symptoms for which they would prescribe antibiotics: pain and local swelling with no radiographic evidence of pathology, symptoms of pain and local swelling with radiographic evidence of pathology, or symptoms of pain and facial swelling with radiographic evidence of pathology.

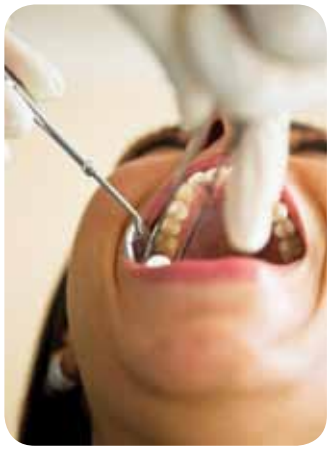
The dentists' responses to each situation were compared with the prescribing guidelines of the American Academy of Pediatric Dentistry and the American Dental Association. The authors of the study found that adherence to professional prescribing guidelines ranged from 10 to 42 percent.

According to the AAPD professional guidelines, dentists should consider prescribing antibiotics when a patient has facial swelling with or without pain, radiographic evidence of pathology, or a combination of the preceding.

Overall, 26 percent of the dentists in the study were in adherence with the professional guidelines, the report stated. Of the 48 pediatric dentists surveyed, 31 percent adhered to the guidelines while 24 percent of the 106 general dentists did so.

The authors reported that when they added fever to the list of collective signs and symptoms, the level of overall adherence decreased to 12 percent. When adding local swelling and removing fever from the list, the overall adherence level increased to 32 percent.

The study also found dentists strayed from professional guidelines when it came to prescribing antibiotics over the phone. ADA guidelines state that to prescribe antibiotics, the dentist must "make an accurate diagnosis," meaning the dentists should see the patient before prescribing antibiotics, the authors wrote.



"What was encouraging was the magnitude of the association."

DAVID MOSEN, PHD, MPH

Diabetes Hospitalizations Reduced With Regular Dental Care

Regular receipt of dental care may reduce the number of diabetes-specific emergency department visits and hospital admissions, a recent study suggested. As published in the January 2012 issue of the *Journal of the American Dental Association* and reported by *Medscape Medical News*, patients with diabetes who received regular dental care were one-third less likely to visit an emergency department or be hospitalized for the disease.

"What was encouraging was the magnitude of the association," lead author David Mosen, PhD, MPH, an affiliate investigator at Kaiser Permanente Northwest in Portland, Ore., said in an interview with *Medscape Medical News*.

Authors of the report stated that although the results of the study could not prove causality, their findings do suggest that receiving regular dental care may reduce diabetic emergencies. The researchers did use statistical methods to adjust for such factors as visits to primary care physicians and still found a strong association with dental visits.

The researchers identified 537 patients with diabetes who received two or more prophylactic treatments, periodontal treatments, or both each year for the calendar years 2005, 2006, and 2007. They compared these patients with 747 patients with diabetes who had no dental care visits during these three years.

According to the report, the two populations used in the study were similar in age, gender, hospital admission, and emergency department use during 2005; Charlson comorbidity scores (a measurement of the risk for death) in 2005; primary care use from 2005 through 2007; and periodontal risk factors (diabetes and smoking) in 2005.

However, the patients who did not get dental care had a higher body mass index in 2005 and were less likely to have good control of hemoglobin A1c (HbA1c) values in that year.

According to *Medscape Medical News*, the two groups had no statistically significant differences, and although the patients in the dental group were slightly more likely to have had low-density lipoprotein cholesterol tests, the researchers did not think the difference was clinically significant. The researchers also found no association between glycemic control and dental care.

However, diabetes-specific emergency department visits in 2007 were independently associated with receipt of dental care, as were diabetes-specific hospital admissions in 2007. In the dental group, 10.1 percent had emergency department visits compared to 16.2 percent of the nondental group (P=.005). Likewise, 8.3 percent of the dental group was admitted to the hospital for diabetes care versus 14.8 percent of the nondental group (P=.001).

The researchers analyzed the data using multiple logistic regression, which showed that receipt of regular dental care was associated with lower diabetes-specific emergency department utilization (odds ratio [OR]=0.61, 95 percent confidence interval [CI]=0.40–0.92) and hospital admissions (OR=0.61, 95 percent CI, 0.39–0.95, the report stated.

Although the results of this study could not show causality, the study results show an association between regular receipt of dental care and reduced diabetes-specific emergency department visits and hospital admissions.

UPCOMING MEETINGS

2012	
April 22–28	United States Dental Tennis Association's 45th Annual Spring Meeting, Kiawah Island, S.C., dentaltennis.org or 800-445-2524
April 26–28	World Federation for Laser Dentistry, 13th Annual World Congress, Barcelona, Spain, wfldbcn2012.com
May 3–5	*CDA Presents the Art and Science of Dentistry,* Anaheim, 800-CDA-SMILE (232-7645), cdapresents.com
Oct. 18–23	ADA 153rd Annual Session, San Francisco, ada.org

To have an event included on this list of nonprofit association continuing education 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.

cda PRESENTS

The Art and Science of Dentistry

Save the date!

Anaheim, California

Thursday-Saturday

May 3-5, 2012

cdapresents.com

Thursday, May 3

Bette E. Robin, DDS, JD

California Dental Practice Act

Time: 7–9 a.m.
Course #: 001
Fee: $20

Risa Simon, CMC

Infection Control

Time: 5–7 p.m.
Course #: 002
Fee: $20

Friday, May 4

Arthur W. Curley, JD

California Dental Practice Act

Time: 5–7 p.m.
Course #: 003
Fee: $20

Risa Simon, CMC

Infection Control

Time: 7–9 a.m.
Course #: 004
Fee: $20

Saturday, May 5

Arthur W. Curley, JD

California Dental Practice Act

Time: 10 a.m.–noon
Course #: 005
Fee: $20

Nancy L. Andrews, RDH

Infection Control

Time: 7–9 a.m.
Course #: 006
Fee: $20

Required courses will be audio recorded and available for purchase.

California Dental Practice Act and Infection Control — Ticketed Admission Only

The Dental Board of California mandates continuing education in infection control and the California Dental Practice Act for license and permit renewal. CDA is proud to present the following courses that will fulfill these required units for license renewal.

Please note:

- Admission to these C.E. courses will be by ticket only.
- You may purchase your ticket in advance at by completing the registration form on Page 16. Tickets are $20 and will guarantee your seat in the course. Please treat the tickets like cash. They are not replaceable.
- If available, tickets will also be sold on-site at the Ticket Booth located in the registration area of the Anaheim Convention Center.
- There will be no late entries allowed. The California mandatory education requires 2 full hours for credit. It is strongly recommended that you arrive a minimum of 15 minutes in advance of the starting time.
- Seating is limited. Tickets will be sold on a first-come, first-served basis.

Infection Control for California

Dental Board requirement for 2 units: This program provides you with the latest educational requirements specific to CCR section 1005, the Dental Board of California Infection Control Regulations.

Note: This 2-hour course does not meet the new infection control education requirement that unlicensed dental assistants need to take as an 8-hour infection control course.

California Dental Practice Act

Dental Board requirement for 2 units: This course meets the new C.E. requirement for California Dental Practice Act education, including the new one-time course requirement for unlicensed dental assistants.

C.E. Regulations

To facilitate California licensed dental professionals in complying with the Dental Board of California regulations, CDA identifies each course's content as either "Core" or "20%." The two categories are defined as follows:

Core courses must make up a minimum of 80 percent of the credits in a renewal cycle. These include courses that directly enhance the licensee's knowledge, skill and competence in the provision of service to patients or the community.

20% courses can make up only 20 percent of the credits in a renewal cycle. These include courses considered to be primarily of benefit to the licensee.

Required Units for License Renewal

For every renewal cycle, California state law requires licensed dentists and allied dental health professionals to complete 2 units in infection control and 2 units in the California Dental Practice Act. See Page 17 for available courses.

Educational Requirements for Unlicensed Dental Assistants

Unlicensed dental assistants, who include any unlicensed individuals in the dental office who perform the duties of a dental assistant, hired on or after Jan. 1, 2010, and employed beyond 120 days must complete the following ONE-TIME within 12 months of hire:

- California Dental Practice Act
- A specific 8-hour course in infection control (to include clinical evaluation)

Additionally, they will be required to maintain a current basic life support certificate.

Dentist employers will be responsible for ensuring that any individual performing dental assisting duties complies with these requirements. Dental assistants who have completed these courses should keep evidence of completion in their files for all future employers' records.

Note: Due to specific number limitations placed on the clinical portion of the 8-hour infection control course, CDA is currently unable to provide this course. For a list of courses approved by the Dental Board of California, go to **cda.org/education.**

Top Tips for Receiving C.E.

- **License numbers matter —** When registering, include the license numbers and formal names of all licensed attendees to ensure C.E. credits are granted.
- **Plan ahead —** Arrive at least 15 minutes early to all courses, and plan an alternate course in the event that your preferred course is full. Doors close at the start of the lecture, and late arrivals will not be admitted.
- **Scan in and out of each course —** Arrival and departure times are used to issue C.E. credits. Scan upon entry and exit, and remain in the course the entire time. Partial credit cannot be granted. Credit cannot be given for overlapping course times or incomplete course attendance.
- **Write down course codes —** During each course, the host will give attendees a three-digit code that should be recorded and saved until you have your complete official C.E. certificate after the convention.
- **Go to the C.E. Pavilion or cdapresents.com after attending class —** At the C.E. Pavilion, you will verify your C.E. units as well as take a brief survey for each course attended. For your convenience, you can wait until you have attended all of your courses to verify them. You can also access the Pavilion via the *CDA Presents* app or **cdapresents.com** up to five days after the meeting. Please keep in mind that all courses displayed in the C.E. Pavilion are those that have on-site scan activity and display does not guarantee credit.
- **Print your certificate online —** To make C.E. certificates available in a timelier manner, they will be posted online approximately three to four weeks after the meeting. At that time, licensed attendees will receive an email containing a link to their C.E. certificates. They can also be accessed at **cdapresents.com**. Copies of certificates can be mailed upon request by calling CDA at 800.232.7645 four weeks after the show.

ADA C·E·R·P® | Continuing Education Recognition Program

CDA is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve nor endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.

CDA designates each activity for a specified number of C.E. units.

These courses meet the Dental Board of California requirements for continuing education units.

Get Your Guaranteed Seat for Limited Lectures

Due to the popularity of many lectures, *CDA Presents* is testing a new "reserved seating" option. How does it work? For just $10, you can guarantee yourself a seat at any of the lectures below. Please note: **This program is strictly optional, and reserved seating is limited. Participants can still attend at no cost on a first-come, first-served basis.**

Lectures with reserved seating are listed below. For more information and to purchase reserved seats, visit **cdapresents.com**. Reservation tickets are only available in advance. No on-site sales.

Receive your seat in these popular lectures for $10.

Thursday, May 3

Lee Ann Brady, DMD
Anterior Esthetic Techniques and Materials (a.m.)
Event # 063

Occlusion in Everyday Dentistry (p.m.)
Event # 064

Kirk Behrendt
Seven Breakthrough Steps to High Performance Teams (full day)
Event # 065

Friday, May 4

Terence E. Donovan, DDS,
Restoration of the Worn Dentition (full day)
Event # 066

Tieraona Low Dog, MD.
Nutrition for the Dental Team (a.m.)
Event # 067

Life in the Balance: Strategies for Optimal Health (p.m.)
Event # 068

Saturday, May 5

Gerard J. Chiche, DDS,
Smile Design, Occlusal and Esthetic Techniques (full day)
Event # 069

Ticket Details

- Seat will be held up to 15 minutes after the program begins.
- Seat will be released if the room is full 15 minutes after the start of the program.
- Ticket must be presented at the door.
- Please treat the ticket like cash — It is nonreplaceable.

Save time and money and reach all the CDA hotels with one phone call.

Our ability to offer you the best conference dates and competitive hotel rates is directly tied to the number of rooms that are reserved under our block in the Anaheim Resort.™ Reserve early to get the hotel of your choice. A limited number of rooms is available at these preferred rates, so call CDA's Housing Bureau as soon as possible. Every effort will be made to accommodate your first hotel choice. If your requested hotel is not available, CDA's Housing Bureau will confirm comparable accommodations for you. **Hotel reservations must be made by April 6, 2012.**

Phone
714.765.8868
Office hours are 8:30 a.m.–5 p.m., Pacific Time.

Fax
714.776.2688

Online/New Reservations
Making reservations is easier than ever. Just log onto **cdapresents.com**, and you can make your hotel reservation. The online service has been upgraded to be more convenient and flexible in making and changing reservations. You may phone, fax, complete the online housing form, or write to make your reservations. Be sure to have a copy of the housing form and your credit card information on hand if you call, or complete the housing form and mail or fax to CDA's Housing Bureau. Please do not do both!

Reservation Acknowledgments
Will be sent to you directly from CDA's Housing Bureau.

Mail
CDA Housing Bureau
800 W. Katella Ave.
P.O. Box 4270
Anaheim, CA 92803

Schedule-at-a-Glance

Thursday, May 3, 2012

Anaheim Convention Center
Hilton Anaheim Hotel

*Repeated Course
> Continued Course

Th Hall Hours
9:30 a.m.—5:30 p.m.

Required Courses — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **California Dental Practice Act (CDPA)** *Robin,* ACC Ballroom C/D
- **Infection Control** *Simon,* ACC Ballroom C/D

For detailed information, see the **On-Site Guide.**

The Spot — Debuting the Smart Dentist Series, Free Lectures in the Educational Theater

- **Nutrition** *Kagan*
- **Practice Management** *Thomason*
- **Insurance** *Cheesebrough*
- **Nutrition** *Kagan*

Workshops — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

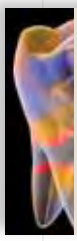
- **Equipment Repair*** *Yaeger, Sr., Yaeger, Jr.,* ACC 213 D
- **Embezzlement** *Gunn,* ACC 210 C
- **Oral Surgery*** *Koerner,* ACC 213 A
- **Esthetic Dentistry*** *Kugel,* ACC 213 C
- **Risk Management*** *Jansen,* Weiss, Hilton California A
- **Laser Dentistry*** *Coluzzi,* ACC Exhibit Hall
- **Equipment Repair*** *Yaeger, Sr., Yaeger, Jr.,* ACC 213 D
- **QuickBooks** *Gunn,* ACC 210 C
- **Oral Surgery** *Koerner,* ACC 213 A
- **Esthetic Dentistry** *Kugel,* ACC 213 C
- **Risk Management** *Jansen,* Weiss, Hilton California A
- **Laser Dentistry** *Coluzzi,* ACC Exhibit Hall
- **Implants** *Little,* ACC 213 B

Express Lectures — Speakers New to the Podium

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Geriatric Dentistry** *Laudenbach,* ACC 205 A/B
- **Restorative Dentistry** *Kroll,* ACC 206 A/B
- **Esthetic Dentistry** *Salehrabi,* ACC 207 A/B
- **Oral Pathology** *Sklar,* ACC 207 C/D
- **Communication** *Singal,* ACC 205 A/B
- **Implants** *Ahmad,* ACC 206 A/B
- **Esthetic Dentistry** *Shah,* ACC 207 A/B
- **Pediatric Dentistry** *Young,* ACC 207 C/D
- **Social Media** *Newman,* ACC 205 A/B
- **Periodontics** *Millar,* ACC 206 A/B
- **Restorative Dentistry** *Cohen,* ACC 207 A/B

Exhibit Hall Grand Opening
Thursday, 9:30 a.m.



The Spot
Educational Theater
Cool Product Display
Net Café and Charging Station
C.E. Pavilion
Free Internet Café

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Lectures

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Restorative Dentistry
Brady, ACC 303 A/B

Photography*
Dunn, ACC 303 C/D

Periodontics/Part 1
Finney, Camargo, Clem, Klokkevold, ACC 204 B

Oral Pathology
Shuler, Hilton California D >

Implants
Little, ACC 209 A/B

Dental Hygiene Program
Rethman, Hilton California B >

Practice Management
Behrendt, ACC Ballroom E >

CAMBRA
Featherstone, Hilton Pacific D >

Pediatric Dentistry/Part 1
Renzi, Jr., Udin, Silva, ACC Ballroom B

Social Media
McCollough, ACC 204 A

Technology
Guichet, Hilton Pacific A

Periodontics
Hempton, ACC 304 C/D >

Sleep Apnea/Snoring
Simmons, Hilton Pacific B >

Sports Medicine*
Padilla, ACC 208 A/B

Endodontics
Brave, Koch, ACC Ballroom C/D >

Operative Dentistry
Clark, ACC Ballroom A >

Occlusion
Brady, ACC 303 A/B

Photography
Dunn, ACC 303 C/D

Periodontics/Part 2
Finney, Goodacre, McGregor, Kepic, ACC 204 B

> *Shuler*, continued

> *Rethman*, continued

> *Behrendt*, continued

> *Featherstone*, continued

Pediatric Dentistry/Part 2
House, *Groper, Mungo*
ACC Ballroom B

Technology
Guichet, Hilton Pacific A

> *Hempton*, continued

> *Simmons*, continued

Sports Medicine
Padilla, ACC 208 A/B

> *Brave, Koch*, continued

Operative Dentistry
Clark, ACC Ballroom A

Insurance
Landeros, Salivar, Hilton Laguna B

Waste Management
Hughes, Pichay, ACC 204

Periodontics
Mariotti, ACC 204 A

Family Hours on the Exhibit Floor
Daily, 9:30 a.m.-noon

Kid Zone
Daily, during exhibit hall hours
Exhibit Hall D
$5 for up to 3 hours

cda PRESENTS **Download the new app**

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Schedule-at-a-Glance

Friday, May 4, 2012

Anaheim Convention Center
Hilton Anaheim Hotel

*Repeated Course
> Continued Course

Friday Exhibit Hall Hours
9:30 a.m.—5:30 p.m.

Required Courses — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Infection Control** *Simon,* ACC Ballroom C/D
- **California Dental Practice Act** (CDPA) *Curley,* ACC Ballroom C/D

For detailed information, see the **On-Site Guide.**

The Spot — Debuting the Smart Dentist Series, Free Lectures in the Educational Theater

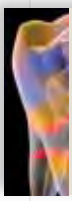
- **Ergonomics** *Kagan*
- **Communication** *Fornelli*
- **Practice Management** *Kozak*
- **Ergonomics** *Kagan*

Workshops — Ticket Required

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

- **Composites** *Clark, ACC 213 D*
- **Technology*** *Guichet,* ACC 208 A/B
- **Provisionals*** *Brady,* ACC 210 A
- **Practice Transition** *Hoover, Story, Christie, Wiederman, Curley, Van Dyk* Hilton Huntington A/B/C
- **Endodontics*** *Brave, Koch,* ACC 213 A
- **Practice Management** *Tyson, Salivar, Conway, Prezbinda, Mothershead, Thomason,* Hilton Laguna A
- **Sports Medicine*** *Padilla,* ACC 210 C
- **Crown Lengthening** *Hempton,* ACC 210 B >
- **Photography** *Dunn,* ACC 213 C >
- **Risk Management*** *Jansen, Weiss,* Hilton California A
- **Laser Dentistry*** *Coluzzi,* ACC Exhibit Hall
- **Composites** *Clark, ACC 213 D*
- **Technology** *Guichet,* ACC 208 A/B
- **Provisionals** *Brady,* ACC 210 A
- **Endodontics** *Brave, Koch* ACC 213 A
- **Sports Medicine** *Padilla,* ACC 210 C
- > *Hempton, continued*
- > *Dunn, continued*
- **Risk Management** *Jansen, Weiss,* Hilton California A
- **Laser Dentistry** *Coluzzi,* ACC Exhibit Hall
- **Implants** *Little,* ACC 213 B

Wine Seminar
Friday, 4–5:30 p.m.
$30
The Spot



CDA's Night at Disney
Friday, 4 p.m. – Park Closing
$65 per person

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Lectures

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Anesthesia/Sedation* — *Paxton, ACC 303 A/B*

Nutrition — *Low Dog, Hilton California C*

Emergencies* — *Ehsan, ACC 303 C/D*

Imaging* — *Miles, ACC 206 A/B*

Esthetic Dentistry — *Kugel, ACC 207 C/D* >

Pharmacology — *Johnson, ACC Ballroom E* >

Ergonomics — *Fitzpatrick, Hilton Pacific A*

Implants — *Little, ACC 209 A/B*

Practice Management — *Eitel, Hilton California D*

Compromised Patients — *Thomas, ACC 205 A/B* >

Restorative Dentistry — *Donovan, ACC Ballroom B* >

Laser Dentistry — *Graeber, ACC 204 B* >

Occlusion — *Gremillion, Hilton California B* >

Dental Benefits — *Alterton, Perry, ACC 207 A/B*

Technology — *Gane, ACC 204 C*

Peer Review — *Hansen, ACC 204 A*

Dental Assistant Program — *Govoni, Hilton Pacific D*

Practice Management* — *Barry, ACC 304 C/D*

Cosmetic Dentistry — *Sorenson, Hilton Pacific B*

Forensic Dentistry — *Cardoza, ACC Ballroom C/D*

Periodontics — *Fazio, ACC Ballroom A*

Anesthesia/Sedation — *Paxton, ACC 303 A/B*

Nutrition — *Low Dog, Hilton California C*

Emergencies — *Ehsan, ACC 303 C/D*

Imaging — *Miles, ACC 206 A/B*

> *Kugel*, continued

> *Johnson*, continued

Practice Management — *Eitel, Hilton California D*

> *Thomas*, continued

> *Donovan*, continued

> *Graeber*, continued

> *Gremillion*, continued

Dental Assistant Program — *Govoni, Hilton Pacific D*

Practice Management — *Barry, ACC 304 C/D*

Cosmetic Dentistry — *Sorenson, Hilton Pacific B*

Forensic Dentistry — *Cardoza, ACC Ballroom C/D*

Periodontics — *Fazio, ACC Ballroom A*

Insurance — *Ingalls, Nelle Hilton Laguna B*

Practice Management — *Barnett, ACC 204 A*

Social Media — *Barry, ACC 204 A*

General Topic — *Brennan, Wu, Sankar, ACC 209 A/B*

The Spot

Educational Theater
Cool Product Display
Net Café and Charging Station
C.E. Pavilion
Free Internet Café

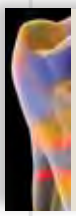


Table Clinic Public Viewing

Friday, noon-2 p.m.
Dental Student
Dental Assisting Student

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Schedule-at-a-Glance

Saturday, May 5, 2012

Anaheim Convention Center
Hilton Anaheim Hotel

*Repeated Course
> Continued Course

Saturday Exhibit Hall Hours
9:30 a.m.—4:30 p.m.

Required Courses — Ticket Required

7AM 8AM 9AM 10AM 11AM Noon 1PM 2PM 3PM 4PM 5PM 6PM

Infection Control
Andrews, ACC Ballroom C/D

California Dental Practice Act (CDPA)
Curley, ACC Ballroom C/D

Family Hours on the Exhibit Floor
Daily, 9:30 a.m.–noon

The Spot — Debuting the Smart Dentist Series, Free Lectures in the Educational Theater

Practice Management
Wiederman

Practice Management
Van Dyk

For detailed information, see the **On-Site Guide.**

Workshops — Ticket Required

7AM 8AM 9AM 10AM 11AM Noon 1PM 2PM 3PM 4PM 5PM 6PM

Corporate Forum Invisolign Clear Essentials II
Boschken, Hilton Laguna A

Corporate Forum Invisolign Clear Essentials I
Ataii, Pacific A

Radiology*
Miles, ACC 213 A

Anesthesia*
Paxton, ACC 213 B

Laser Dentistry*
Graeber, ACC 213 C

Pediatric Dentistry*
Alcarez, Chen, ACC 210 A

Crown Lengthening
Hempton, ACC 210 B >

Composites*
Sorenson, ACC 210 C

Risk Management
Jansen, Weiss, Hilton California A

Laser Dentistry
A. Cardoza, K. Cardoza, ACC 213 D

Radiology
Miles, ACC 213 A

Anesthesia
Paxton, ACC 213 B

Laser Dentistry
Graeber, ACC 213 C

Pediatric Dentistry
Alcarez, Chen, ACC 210 A

> *Hempton, continued*

Composites
Sorenson, ACC 210 C

Laser Dentistry
A. Cardoza, K. Cardoza, ACC 213 D

7AM 8AM 9AM 10AM 11AM Noon 1PM 2PM 3PM 4PM 5PM 6PM

Lectures

7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Laser Dentistry
A. Cardoza, K. Cardoza, ACC 304 C/D

Periodontics
Fazio, ACC Ballroom A

Nutrition
Low Dog, Hilton California D

Marketing
Plankers, ACC 303 C/D

General Topic
Weber, Hilton California C

Dental Assistant Program
Engelhardt-Nash, Hilton Pacific C >

Substance Abuse/Tobacco*
Kessler, Hilton California B

Cosmetic Dentistry
Chiche, ACC Ballroom B >

Ergonomics
Valachi, ACC 207 C/D

Practice Management
Castagna, Moore, Hilton Pacific D

Dental Materials
Donovan, ACC 303 A/B >

Compromised Patients
Thomas, ACC 205 A/B >

Pharmacology
Johnson, ACC Ballroom E

Dental Benefits
Fornelli, Tyson, ACC 209 A/B

Dental Hygiene Program
Davis, ACC 207 A/B

OSHA
Andrews, ACC 204 B

Periodontics
Fazio, ACC Ballroom A

Nutrition
Low Dog, Hilton California D

Practice Management
Plankers, ACC 303 C/D

General Topic
Weber, Hilton California C

> *Engelhardt-Nash, continued*

Substance Abuse/Tobacco
Kessler, Hilton California B

> *Chiche, continued*

Ergonomics
Valachi, ACC 207 C/D

Practice Management
Castagna, Moore, Hilton Pacific D

> *Donovan, continued*

> *Thomas, continued*

> *Johnson, continued*

Dental Hygiene Program
Davis, ACC 207 A/B

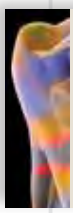


Table Clinic Public Viewing
Saturday, noon-2 p.m.
Military/Resident Free Internet Café

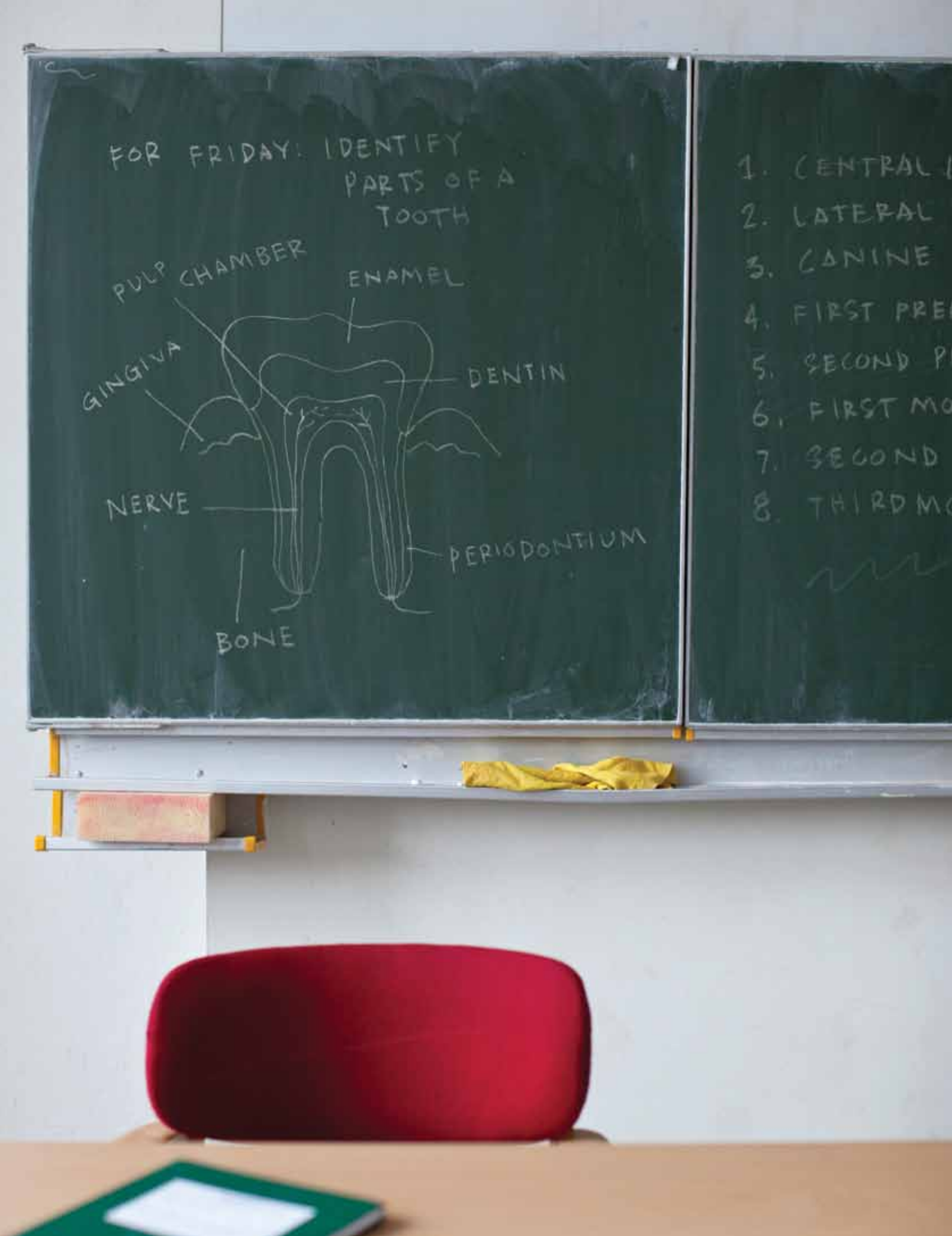
7 AM | 8 AM | 9 AM | 10 AM | 11 AM | Noon | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM

Join the conversation

Want to plan the perfect meeting experience? There's an app for that! From their mobile devices, Blackberry and Windows Mobile users can download the app from cdapresents.com. IPhone and Android users can search for CDA Presents in their respective app stores.

facebook.com/cdafan

#cdaOC


FOR FRIDAY: IDENTIFY PARTS OF A TOOTH
PULP CHAMBER
ENAMEL
GINGIVA
DENTIN
NERVE
PERIODONTIUM
BONE
1. CENTRAL
2. LATERAL
3. CANINE
4. FIRST PRE
5. SECOND P
6. FIRST MO
7. SECOND
8. THIRD MO

CDA JOURNAL, VOL 40, Nº4

Oral Health Literacy

LINDSEY A. ROBINSON, DDS

A 2-year-old is diagnosed with an inner ear infection and prescribed an antibiotic. Her mother understands that her daughter should take the prescribed medication twice a day. After carefully studying the label on the bottle and deciding that it doesn't tell how to take the medicine, she fills a teaspoon and pours the antibiotic into her daughter's painful ear (Parker et al., 2003).[1]

GUEST EDITOR

Lindsey A. Robinson, DDS, is a pediatric dentist practicing in Grass Valley. She currently is president-elect of the California Dental Association.

Hope for better understanding ...

Health literacy has received much national attention in the last 10 years and is now widely understood as playing a crucial role in efforts to improve the public's health. In 2000, it became a national health care priority with its inclusion as a Healthy People 2010 goal, and, in 2003, Surgeon General Richard Carmona stated that "health literacy can save lives, save money, and improve the health and well-being of millions of Americans."

In 2004, the Institute of Medicine released a comprehensive landmark report, "Health Literacy: A Prescription to End Confusion," that stated that nearly half (90 million) of adults in the United States have low functional health literacy. The report continued on to say that in the United States, limited literacy skills are a stronger predictor of an individual's health status than age, income, employment status, education level, and racial or ethnic group. It impacts an individual's ability to under-

stand instructions on prescription drug bottles, appointment slips, educational brochures, and dentist's directions.[1]

With 50 percent of Americans unable to read well enough to decipher a bus schedule, a large portion of the public will have great difficulty in navigating the health care system. All being said, in the United States, limited health literacy increases greatly the cost of disease due to increased use of emergency care and less use of preventive self-care to the tune of an estimated $100–200 billion a year.[2] More recently in 2009, the U.S. Dept of Health and Human Services released a National Action plan to improve health literacy that suggests strategies to engage communities, organizations and individuals in a coordinated effort to increase the health literacy of the public.

This issue of the *Journal of the California Dental Association* is meant to provide our readers with a comprehensive, nationally focused view of health literacy in dentistry with suggestions and recommendations for helping California's population become better stewards of their own oral health. The issue kicks off with a look at the American Dental Association's major initiative, "National Plan to Improve Health Literacy in Dentistry." Recognizing the growing body of evidence on the relationship between health literacy, health outcomes and related cost, the ADA's strategic action plan 2010-2015 was developed to support cross-cutting efforts to improve health literacy in dentistry. The article, "Oral Health Literacy: At the Intersection of Schools and Public Health," describes schools as a locus for public health prevention and dental care programs, and, additionally, places of opportunity to enhance health literacy, and teach essential life skills to maintain optimal oral health.

Because research has shown that dentists and dental team members are the most significant source of oral health information; private practices, public clinics, and dental schools all play an essential role in improving the oral health literacy of residents.[3,4] Drs. Horowitz and Kleinman, in "Creating a Health Literacy-based Practice," provide recommendations for developing a health literacy-based practice environment and suggestions on how to effectively communicate with patients in any practice setting. Along the same lines, the article "Maryland Dentists' Knowledge of Oral Cancer Prevention and Early Detection" highlights the importance of dental professionals remaining current on the knowledge and skills related to oral cancer risk factors and diagnosis in order to detect the disease in its early stages. Investments to increase oral cancer literacy among professionals can translate to increased oral cancer literacy among the public. This in turn will reduce morbidity related to the disease and ultimately save lives.

In "Health Literacy and California's Clarion Call," Dr. Linda Centore brings the topic at hand back to our doorstep and makes an emphatic case as to why California dentists should pay particular attention to the subject due to the state's increasing racial and ethnic diversity that will have a profound impact on the practice of dentistry. Successful dental practices of the future will need to understand how to meet the unique cultural and linguistic needs of the average dental patient, and she provides practical advice and a cadre of resources to assess and address their health literacy needs. Finally, Susan Bauer reflects on her years of personal experience working with community health workers (promatoras) to support culturally appropriate health education, strengthen relationships between clinicians and the underserved through assistance in navigating the health care system, and build skills that empower communities to be healthy.

My sincere appreciation goes to Dr. Alice Horowitz, a fourth-generation Californian, and colleagues who placed in our hands three articles from the University of Maryland's School of Public Health, a major center of learning for health literacy. Gratitude is also extended to the other authors in this issue who gave generously of their time and expertise to provide for our readers a *Journal* issue filled with rich food for thought on the role the dental profession and organized dentistry can play in enhancing the public's understanding of how to be champions of their own oral health. ■■■■

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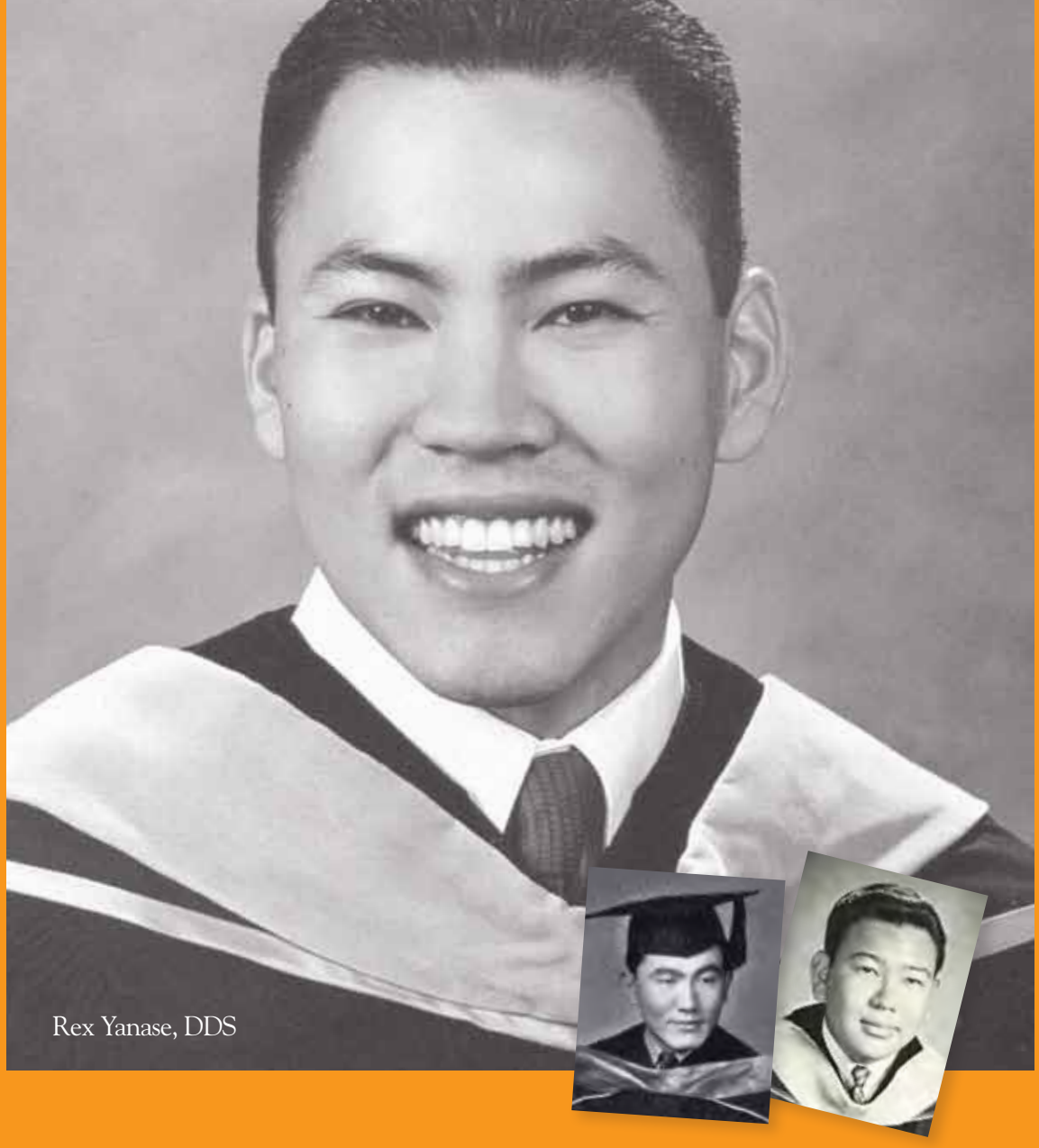

A legacy of caring. What do you do when your grandfather and father are both dentists? For Rex Yanase, the answer is anything you want. He never felt pressured to follow in their footsteps, but he knew he wanted to be in health care and he was also interested in business. Dentistry allowed him to combine everything. He could honor his family legacy, run his own business and care for people. It was a win, win, win.

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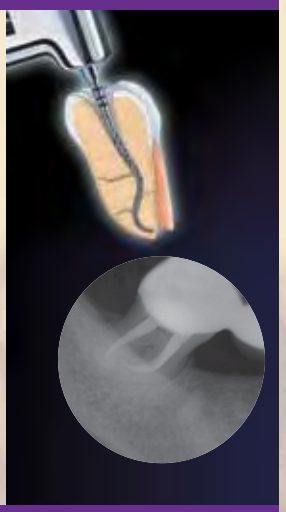

Faculty: Dr. Ilan Rotstein, Dr. Thomas Levy, Dr. James Simon, Dr. Samir Batniji, Dr. Yaara Berdan, Dr. Daniel Kolzet, Dr. Stanley Malamed, Dr. Jan O'Dell, Dr. Daniel Schechter, Dr. Louis Schwarzbach, Dr. Anthony Tran

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National Plan to Improve Health Literacy in Dentistry

GARY D. PODSCHUN

ABSTRACT Limited health literacy is associated with poorer health knowledge, worse health behaviors, and adverse clinical outcomes. In 2009, the ADA proposed a 2010-2015 strategic action plan to improve health literacy for the dental profession and other stakeholders. This article provides an overview of the National Advisory Committee on Health Literacy in Dentistry and describes the basic elements of the ADA plan.

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ACKNOWLEDGMENTS

This work was supported by the American Dental Association and its Council on Access, Prevention and Interprofessional Relations. The Council's National Advisory Committee on Health Literacy in Dentistry provided additional guidance in the development of this plan.

Health literacy in dentistry is "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate oral health decisions."[1,2] The American Dental Association (ADA) affirmed that limited health literacy is "a potential barrier to effective prevention, diagnosis and treatment of oral disease," and "clear, accurate and effective communication is an essential skill for effective dental practice."[3,4]

The ADA, in October 2006, authorized the formation of a national advisory committee on health literacy in dentistry as an ad hoc advisory committee to the Association's Council on Access, Prevention and Interprofessional Relations (CAPIR).[5] This committee was reauthorized in 2009 and provides expert guidance to CAPIR[6] (**TABLE 1**). The committee's long-term vision is that dentists and dental team members, and the ADA and related health organizations, will use and promote clear, accurate, and interactive communication with colleagues, patients, and policy-makers to achieve optimal oral health for all. This vision may be realized when the following promising and best practices are used:

- Create a respectful and "shame-free" environment and use a universal standards approach, where all patients are offered assistance to better understand and use printed and written communications;
- Periodically assess office/clinic for ways to improve communication;
- Use clear and plain language in talking and writing;
- Encourage question-asking and dialogue;

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- Use the "teach-back" or "teach-to-goal" method to check on successful communication by asking patients to repeat their interpretation of instructions and other information that has been provided; and
- Offer take-home tools designed for easy use with clear directions.

CAPIR and its National Advisory Committee on Health Literacy in Dentistry developed this strategic action plan as a set of principles, goals, and, in some cases, specific strategies to provide guidance to the association and its councils and commissions, dental professionals, policy-makers and others to improve health literacy.

TABLE 1

National Advisory Committee on Health Literacy in Dentistry Tasks

1. Assist CAPIR to develop recommendations about policies, programs, interventions, and research related to improving oral health literacy.
2. Discuss challenges facing oral health literacy practice and research and making recommendations to minimize these barriers.
3. Review current ADA policies and making recommendations to CAPIR for amending and developing oral health literacy-related policies.
4. Serve as an informal conduit of information between the ADA and external organizations and institutions on activities related to oral health literacy.
5. Identify and make recommendations to CAPIR about approaches to promote oral health literacy through mechanisms and partnerships in both the public and private sectors.
6. Aid CAPIR to identify public and private resources to support proposed oral health literacy programs and other activities.
7. Foster the development of health literacy expertise within the dental profession.

Background

Nearly nine out of 10 U.S. adults have difficulty understanding and using everyday health information that is generally available in health care facilities, retail outlets, media, and communities.[7] The average American reads at the eighth- to ninth-grade level; however, health information is usually written at a higher reading level. People with low health literacy are often less likely to seek preventive care, comply with prescribed treatment and maintain self-care regimens needed to control chronic diseases. People are often embarrassed or ashamed to admit they have trouble understanding health information and instruction, and they often develop well-practiced coping mechanisms that effectively mask their problem. In the United States, limited literacy skills are a stronger predictor of an individual's health status than age, income, employment status, education level, and racial or ethnic group.[8] Limited health literacy is estimated to cost the United States between $100 and $200 billion each year.[9]

Health literacy, including health literacy in dentistry, is multidimensional and context-specific, and is usually influenced by individual literacy skills (i.e., ability to perform basic reading and numerical tasks), psychosocial dynamics, and various health contexts (i.e., anxiety experienced during a dental or medical encounter, complexity of information being described and/or ability of a provider to effectively communicate). Health literacy, as a subset of general literacy, is not static and may vary based on an individual's skills in light of internal and social factors. Thus, health literacy is complex and dynamic, involving both individual competence and external influences.[8]

Health literacy is a shared function of social and individual factors. Individuals' health literacy skills and capacities are mediated by their education, culture, and language (FIGURE 1). Equally important are the communication and assessment skills of the people with whom individuals interact regarding health, as well as the ability of the media, marketplace, and other agencies to provide health information in a manner appropriate for the audience. This framework identifies three major areas for potential intervention to improve health literacy. The model illustrates the potential influence on health literacy as individuals interact with educational systems, health systems and cultural/social factors, and suggests these factors may ultimately contribute to health outcomes and costs. The cumulative effect of a body of consistent evidence suggests that causal relationships may exist between health literacy and health outcomes.[10]

Five strategic focus areas provide the basic framework for the action plan. These topics are aligned with the five actions of the U.S. Department of Health and Human Services' "National Call to Action to Promote Oral Health"[11] (TABLE 2), developed under the leadership of the Office of the Surgeon General. There is one goal and several objectives associated with each focus area.

Training and Education Goal

Increase the understanding of health literacy in relation to oral health and quality of life.

The objectives for this goal include educating the public and policy-makers about oral health and its relationship to overall health and encouraging the education and training of the current and future dental workforce — dentists, dental hygienists, dental assistants, and students of each discipline — about health literacy, including the principles of effective communication and the use of plain language in dental practice.

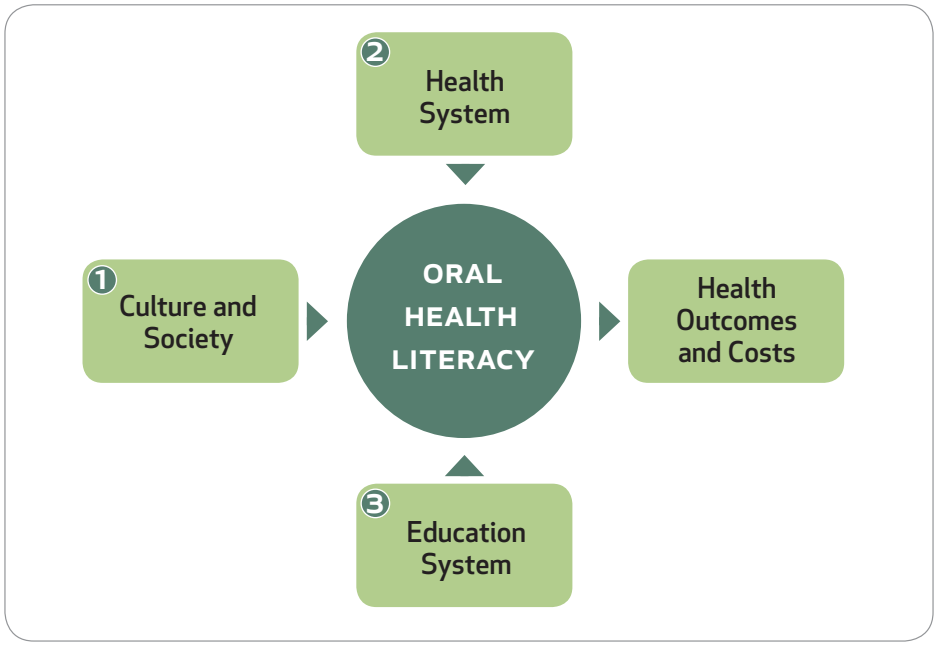

FIGURE 1. Potential points for intervention in the health literacy framework.[8]

TABLE 2

National Advisory Committee on Health Literacy in Dentistry Tasks

National Call to Action	ADA Plan Focus Area
Change perceptions of oral health	Education and training
Overcome barriers by replicating effective programs and proven efforts	Advocacy
Build the science base and accelerate science transfer	Research
Increase oral health workforce diversity, capacity, and flexibility	Dental practice
Increase collaborations	Build and maintain coalitions

Advocacy Goal

Persuade legislators, regulators, and other key decision-makers that health literacy is a priority public health concern, leading to increased funding and other practical support for health literacy-related education, research, and interventions.

This will involve developing and implementing advocacy strategies related to health literacy in dentistry and collaborating with other stakeholders on legislative, regulatory, or market-based projects that promote improvement in health literacy. The plan calls for collaboration with stakeholders to develop and implement an advocacy strategy to influence decision-makers about the approval and funding of health literacy improvement programs.

Research Goal

Build the science base and accelerate science transfer related to health literacy in dentistry and in cooperation with other health disciplines.

The dental profession needs to assure that health literacy is a priority by encouraging that it is included in the research agendas for the association and other health care organizations, federal agencies, and other research institutions and sponsors. The association will conduct ongoing surveys of various populations (consumers, dentists and dental team members, science writers, dental school faculty) over time to longitudinally monitor changes in health literacy-related knowledge, attitudes, and behaviors. The ADA will also facilitate the development of a plan to disseminate research findings about health literacy in dentistry.

Dental Practice Goal

Improve communication and patient understanding in dental practice.

The association plans to summarize, communicate, and replicate known promising and best practices to improve health literacy. The ADA will assist with developing, refining, testing, and translating health literacy-specific interventions with the public and dental team members.

Build and Maintain Coalitions Goal

Establish health literacy as a priority issue for dental and other health related organizations.

The ADA will build consensus around mutually agreed-upon priorities, targeted actions, and audiences, based on the best science available, to improve health literacy by defining key activities, stakeholder responsibilities, allocation of resources and timelines through continued action planning processes. The association will encourage coalition development and shared responsibility among key oral health and related organizations. The ADA will continue to build relationships with potential funders for oral health literacy intervention and research programs related to oral health. The association will establish and maintain collaborative relationships to develop and disseminate simple, standardized messages on proper self-care and use of dental services by forging alliances with key stakeholders to promote, advocate, and support oral health literacy initiatives.

The council realizes these activities will require resources, financial and human, and believes the strategies should be viewed as suggested tasks to improve health literacy and not a prescriptive "to-do" list. The suggested activities give examples of the types of strategies that may be used to achieve the identified goals. This is not a comprehensive list of strategies, and it is likely that more tasks not in the document will be undertaken and specified activities may be modified or abandoned, so the ADA and its agencies can be more responsive to emerging information and needs during the course of the plan. ■■■■

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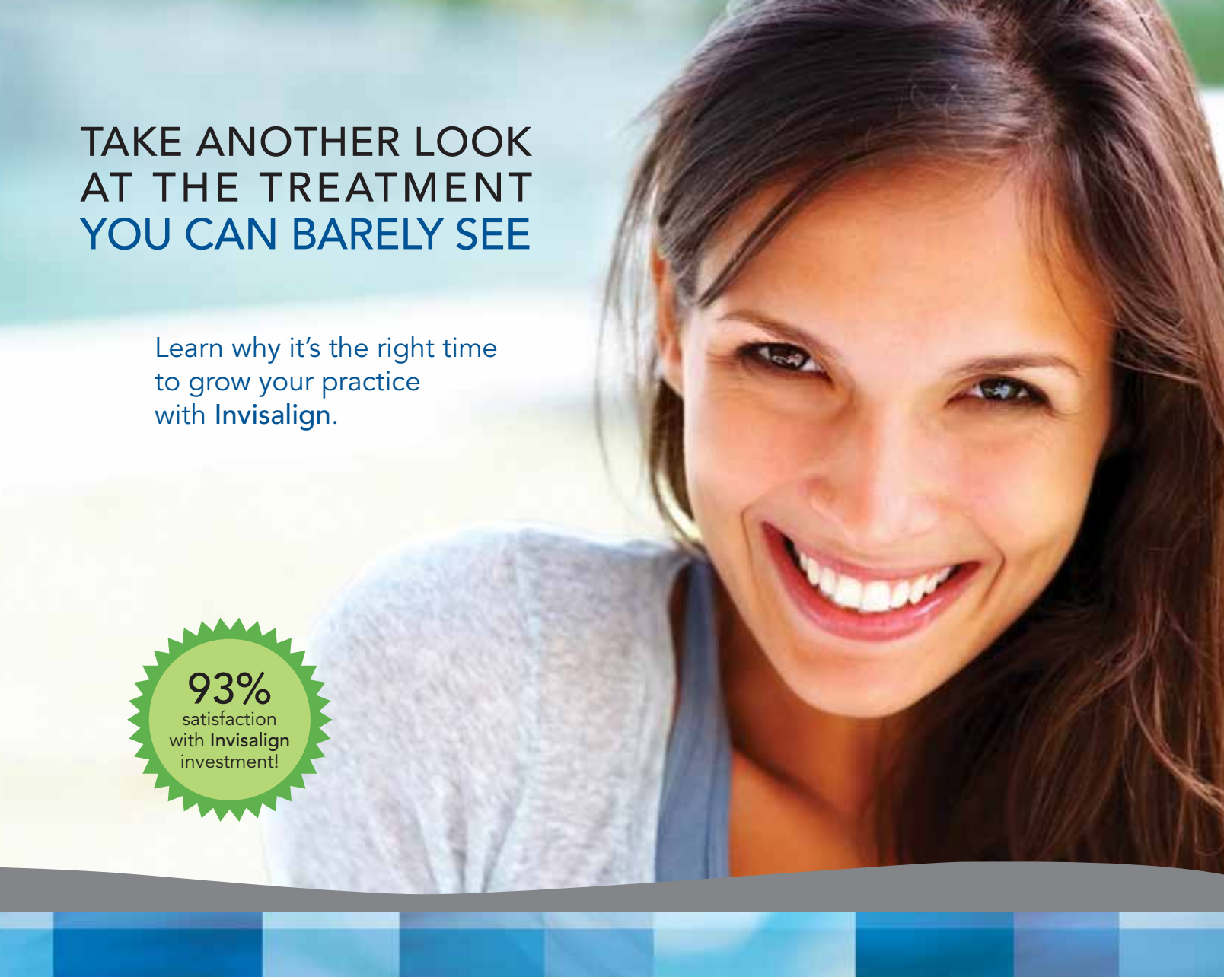

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Oral Health Literacy: at the Intersection of K–12 Education and Public Health

BONNIE BRAUN, PHD; ALICE M. HOROWITZ, PHD; DUSHANKA V. KLEINMAN, DDS, MSCD; ROBERT S. GOLD, PHD, DRPH; SARAH D. RADICE, BS; AND CATHERINE MAYBURY, MPH

ABSTRACT The link between a student's health and their ability to learn is well-established. Schools are the intersection of public health programs, dental care, and self-care. This position affords them a unique role and opportunity to enhance health literacy, including oral health literacy. This paper explores the potential of K-12 school programs and the dental profession to address oral health literacy, and, in so doing, provide future participants with essential skills to promote their oral health.

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Oral health care is an essential component of personal health care. As former Surgeon General C. Everett Koop noted, "you're not healthy without good oral health."[1] Dental caries is the most common of all childhood chronic diseases yet chronic conditions of children such as asthma, diabetes, and obesity receive more of the public's attention. In California, the need for dental care is the most prevalent unmet health care need among children and youth. Twenty-eight percent of elementary school children have untreated tooth decay.[2] This disease can and does lead to loss of school time, serious general health problems, pain, inability to eat, overuse of the emergency room, and even death as in the case of the young boy in Maryland, Deamonte Driver.[3-4] This paper makes a case for K-12 school-based oral health education as a means of developing functional oral health literacy among children and their families. K-12 schools are at the intersection between general education and health and oral health literacy education.

Health Literacy

Recent reports have highlighted the widespread prevalence of low health literacy in our nation.[5-7] In 2003, the National Assessment of Adult Literacy (NAAL) revealed only one in 10 adults is proficient in understanding health-related written materials.[6] More than 75 million American adults have low or limited health literacy. One in three American adults has difficulty understanding and applying health information. According to the NAAL, 6 million Californians have low literacy.[6] This figure does not include Californians who could not be tested due to a language barrier.[6] Hispanic adults had lower av-

erage health literacy than any other racial-ethnic group. For California, where the Hispanic population is a minority-majority, this poses a unique challenge to improving oral health literacy. To prevent continued or increased numbers of low-health literate adults requires education of children and youth.

Being health literate is important because limited or low health literacy contributes to poor health outcomes, which costs the United States billions of dollars each year. The estimated annual cost of low health literacy ranges between $106 billion and $238 billion dollars.[8] Individuals with low health literacy have increased use of emergency services and decreased use of preventive methods, and services such as using fluoride mouthrinse and having dental sealants applied.[9-11] Individuals with low health literacy are more likely to have a chronic condition, such as untreated tooth decay.[11] While every person experiences low health literacy at some point in their lifetime, those adults at increased risk for consistently low health literacy include the elderly, minority groups, and those with less than a high school education.[5]

Health literacy is complex and impacted by culture, society, health systems and the education systems, and is more than simply the ability to read; it includes listening, understanding, writing, numeracy, and oral communication. Health literacy is increasingly important to help the population navigate our health systems, maintain personal health, and maintain the health of their children.

The Health Literacy Tipping Point

The year 2010 was a pivotal year for health literacy and considered the year health literacy reached a tipping point. Health literacy's inclusion in five milestones during 2010 has put it in the forefront of a national conversation on health policy. The first milestone, the Patient Protection and Affordable Care Act (ACA), passed in March 2010, identified provisions centered on health literacy and acknowledged the critical importance of patients being health literate for health care reform to occur.[12] In May 2010, the National Action Plan for Improving Health Literacy was released as a second milestone for health literacy. This action plan outlined seven goals for improving health literacy.[13] Third, the Plain Writing Act of 2010 was passed in October 2010 and requires federal agencies to use plain writing on all documents produced or substantially revised.[14] Fourth, the following November, the Center for Health Care Strategies presented the Institute of Medicine's commissioned paper, "Health Literacy Implications of the Affordable Care Act," to the Roundtable on Health Literacy.[12] The fifth milestone, Healthy People 2020, was released in December 2010, establishing national objectives addressing the need to increase health literacy, the communication skills of health care providers, shared decision-making, and readability of instructions for patients.[15]

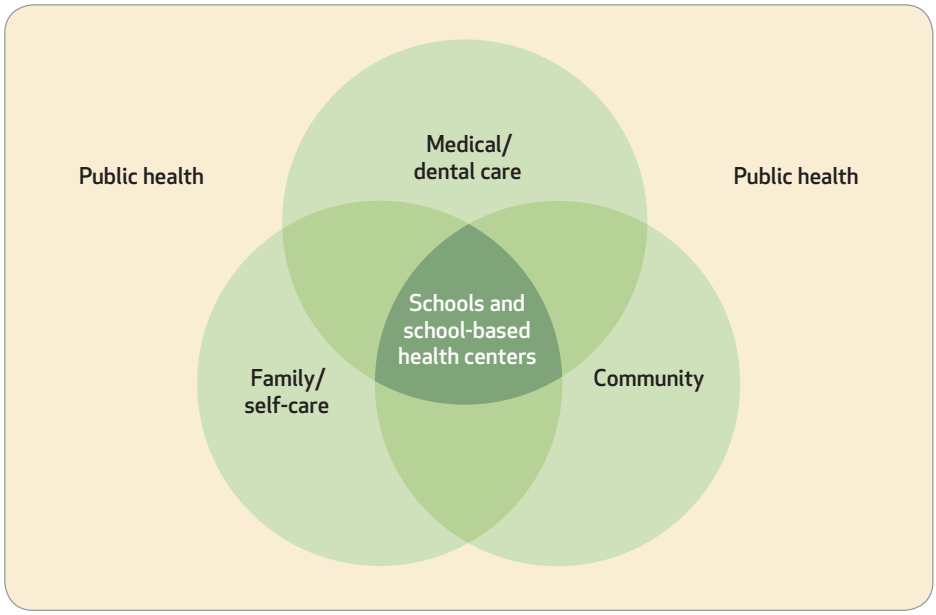

FIGURE 1. The intersection of public health programs, dental care and self-care.

Oral Health Literacy

Oral health literacy is a subset of health literacy. As defined in Healthy People 2010, oral health literacy is "the degree to which individuals have the capacities to obtain, process, and understand basic oral health information and services needed to make appropriate health decisions."[16] The frequency and specificity of daily oral health care for both individual children and parents requires basic knowledge and skills of self-care essential to overall health and oral health. Ironically, dental disease can be prevented with the appropriate self-care and use of fluoride and pit and fissure sealants. K-12 programs can include this education along with provision of fluoride mouthrinse regimens and pit and fissure sealant programs in school-based clinics or centers.[17] The ACA calls for the incorporation of oral health into school-based clinics and health centers and for the support of school-based dental sealant programs. Educators can take advantage of skill development and curricula to incorporate health-related knowledge and skills into their curricula.

K-12 Schools, Health and Oral Health Literacy

Oral health literacy impacts children from a very early age. Collectively, schools have the needed assets and are positioned perfectly to both improve oral health literacy and mitigate the consequences of poor health literacy, both of which require leveraging available opportunity in order to do so. Children and schools suffer when parental literacy is low, when their ability to locate and understand information is not developed, and when interventions to improve health literacy are not tailored to the developmental stages and ages of children in K-12 program.

Recognizing the Assets of K-12 Schools

Schools have varying levels of assets including: access to both youth and adults; expectations for teaching of health; teachers; and space in the form of centers or clinics and staff dedicated to health. To capitalize on these assets requires that K-12 schools be seen as an environment for delivery of preventive regimens accompanying educational messages to increase oral health literacy. Schools not only provide in-class opportunities but also before-and after-school programs where positive health outcomes can be promoted through a systematic effort to improve oral health literacy. They also have access to families and community residents.

The case for schools at the intersection between general education and health and oral health literacy education is twofold: 1) More children are attending school and for longer periods of time than in previous decades, putting schools in a position to do more than any other institution to increase the well-being and competence of children; and, 2) schools can provide an increasingly cost-effective way to address the oral health of children and their families.[18] Schools are an existing, underutilized delivery environment in which intended learners are readily available. Improved health outcomes can be achieved through supporting interventions that lead to increases in high school graduation rates. Failure to obtain a high school diploma can lead to a lifetime of disadvantages including social, political, economic, and, most importantly, health.[19]

SCHOOLS HAVE THE needed assets and are positioned perfectly to both improve oral health literacy and mitigate the consequences of poor health literacy.

As depicted in **FIGURE 1**, schools are strategically positioned to promote the health and well-being of students as they move toward adulthood.[10] The relationship between health and education is critical because children need to be healthy to be ready to learn. Older data show that children missed 1.57 million school days due to dental problems.[3] The number of missed school days could be reduced with increased understanding of how to stay well and concomitantly providing fluoride and pit and fissure sealants, especially in schools with a high proportion of children eligible for free or reduced lunch.

Further, because many children, especially those of racial and ethnic minority groups, tend to drop out of school and become parents early in life, it is important to provide them with appropriate functional health literacy skills in school.[19]

Building on the Foundation of Schools

Increasing oral health literacy will require interventions directed at all age groups, families, and communities. If families are the first environment where oral health literacy begins, then schools are the second environment. Unfortunately, too many parents are uninformed about oral health.[20] Schools supplement and complement family-based education, and already focus on increasing other kinds of literacy. Schools provide a natural "home" or "hub" for the delivery of effective interventions designed to enhance oral health literacy for children, their families, and others in their community (**FIGURE 1**).

The 2010 National Action Plan for Health Literacy identified a goal to: "Incorporate accurate standards-based and developmentally appropriate health and science information, and curricula in child care and education through the university level."[13] Developers of the plan drew on the literature from the Centers for Disease Control and Prevention (CDC) and others who acknowledge the importance of teaching functional health information in schools as a means to learning, using and maintaining healthy behaviors.[13] They noted research findings that indicate adolescents are taking on increasing responsibility for their health care and that children can understand much information about health. Further, they suggest that the National Health Education Standards could be used to increase health literacy.[13]

The Joint Committee on National Health Education Standards created a framework of eight standards, "National Health Education Standards: Achieving Excellence." The standards provide concrete expectations for health education for parents, students, and communities. Each standard has a rationale, indica-

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tors of performance for each grade level grouping, an explanation of how to use the standards to develop programs, and how to assess excellence.[21,22] See **TABLE 1**.

When included in the school curricula, health and oral health literacy provide information, understanding, and skills needed to protect and improve the health status of school children, school personnel, families of the children, and the communities surrounding schools. Schools are an essential, though underutilized component of the potential delivery system for public oral health literacy interventions and services. There are approximately 13,000 schools in California plus preschool and other educational facilities. These sites of learning are a powerful resource for improving the health and well-being of California and the nation.[8,23]

Working With Families

Low health literacy among adults directly affects children. Half of all parents experience difficulty understanding basic health information and services.[20] As dependents, children rely on a parent's ability to make important health decisions. When a parent has poor or low health literacy, making important health decisions can be difficult. An example of how low literacy directly impacts schools and children is when a child has an opportunity to participate in a school-based sealant program. If a parent does not understand what dental sealants are and their purpose, they're not likely to sign the consent form for their child to participate in the school-based program.

The ability to get and understand health information is increasingly necessary to interact with the health care systems. For parents, those skills are critical for participating in wellness programs or knowing where to obtain health insurance coverage for their child. In the United States, 5 million children are uninsured but eligible to be insured.[23] Teaching the ability to get and understand information through community-focused adult education programs could reduce this barrier to positive health outcomes.

TABLE 1

National Health Education Standards

STANDARD 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
STANDARD 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
STANDARD 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.
STANDARD 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
STANDARD 5: Students will demonstrate the ability to use decision-making skills to enhance health.
STANDARD 6: Students will demonstrate the ability to use goal-setting skills to enhance health.
STANDARD 7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
STANDARD 8: Students will demonstrate the ability to advocate for personal, family, and community health.

Joint Committee on National Health Education Standards. National Health Education Standards: Achieving Excellence. Atlanta, American Cancer Society, p8, 2007.

Leveraging Opportunity

The Association of State and Territorial Dental Directors (ASTDD) adapted the CDC's Division of Adolescent and School Health (DASH)-coordinated school health program model to integrate oral health and school health. ASTDD recommends:

1) Health education — educate students on oral health, nutritional, and tobacco prevention and cessation;

2) Physical education — promote injury preventions, mouthguard use, and sports safety;

3) Health services — provide dental services in school health centers, establish dental homes, and coordinate referrals for dental care;

4) Nutrition services — provide healthy school meals; education on oral health, obesity, and diabetes relationships;

5) Counseling, psychological and social services — educate staff about oral health and self esteem relationships;

6) Healthy school environment — implement school policies concerning nutrition, tobacco, sports safety, and self oral care;

7) Health promotion for staff — provide training on oral disease, nutrition, tobacco use and injury prevention; and,

8) Family and community involvement — develop and coordinated efforts to promote oral health and access to dental care. Specific recommended activities are shown in **TABLE 3**. While DASH stipulates the nation's schools should not be expected to solve the nation's most serious health and social problems, they provide a critical facility in which collaborative efforts can be designed to maintain the well-being of young people.[24-26]

K-12 school-based health centers, where dental services are provided and coordinated school health preventive regimens can be administered, are especially important in preventing oral diseases and increasing oral health literacy. They permit one-on-one counseling and supplement or complement classroom education. These centers and programs are more than just service centers. They can be a primary source for health

TABLE 2

Recommendations for Increasing Oral Health Literacy

1. Assess and develop capacity to leverage the physical and educational infrastructure provided by California's schools to influence health literacy, including oral health literacy.
2. Conduct educational demonstration research programs that incorporate the National Health Education Standards to determine best approaches and outcomes for including functional health literacy in schools.
3. Create best practice guidelines tailored for each population at risk.
4. Create strong school-community partnerships to maximize community assets for improving health outcomes of school-age children.
5. Involve land-grant universities, with their faculty both on and off campus, in the planning a comprehensive school and community initiative to improve the health and well-being of California's youth and the adults who influence their health.
6. Critically review the National Action Plan for Health Literacy for additional recommendations with a specific focus on strategies for educators, community service providers, health care teams and library professionals.

TABLE 3

Action Steps for Schools

1. Increase access to dental sealants and fluoride.
2. Increase school-based health component
3. Encourage tobacco-free environments.
4. Increase use of head, face, eye, and mouth protections during sport-related activities.
5. Offer healthier school foods, snacks, and drinks.

Association of State and Territorial Dental Directors. Integrating Oral Health into Coordinated School Health Programs. http://www.astdd.org/intergrating-oral-health-into-coordinated-school-health-programs.

information and a source of support where students can connect with caring adults who have an interest in seeing the students have positive outcomes not only in health but also in academics.[27,28]

Because so many parents are employed, it can be difficult to take time off to take their children to dental appointments. Alternatively, parents may be concerned with having their child absent from school for a dental appointment. Thus, school-based health centers and coordinated preventive regimens offering oral health care and education provide solutions to the needs of many students and families.

Other opportunities abound to include oral health literacy curricula in K-12th grades. For example, oral health-related content could be integrated and sequenced in math, science, and in English. Students could learn necessary preventive regimens such as proper toothbrushing, or how to prevent dental caries through use of toothpaste with fluoride, fluoridated mouthrinse, and drinking fluoridated water.

Vocational education programs could and should include curricula on how to prevent disease, including oral diseases, how to be a patient, what questions to ask, how to make a dental appointment, how to complete a health history form, and how to maintain personal health records. Vocational programs could partner with colleges or universities that have health or public health programs as they prepare for workforce opportunities. It is a win-win situation because students in vocational education schools could learn pivotal personal health skills and knowledge, as well as health-related workforce possibilities. College or university students, who might contribute to vocational education, could hone their ability to share important health information and steer youth toward application of that knowledge to positive health behaviors.

Opportunities to address health outcomes are not new but are not as pervasive as they could be if parents, teachers, and administrators decided to make health a priority across the curriculum, and if the nation's universities and public health-related agencies and organizations worked together to make the priority a reality. They can turn to the "Health Framework of California Public Schools: Kindergarten through Grade Twelve" and the National Health Education Standards, for models for developing health literacy skills through a student-centered curriculum intended to improve how students understand and maintain health.[22,29]

If schools lack health educators or if they desire a school-wide focus on health, teachers could develop their capacity, including confidence, through in-service education by local health providers and health education professionals. They could prepare older students to teach younger students and extend their teaching reach. Older children could be trained in health behaviors appropriate for younger students such as, the how, why, and when of brushing teeth with fluoride. Younger children can demonstrate how to brush their teeth in their own mouth, and older children can monitor the younger children. The "each one teach one" principle applies here.

Schools also are a center for pre- and postschool activities and other community initiatives such as adult learning programs. Oral health literacy could be enhanced through after-school programs that complement and supplement classroom learning. After-school programs might be especially positive because many schools are not able to use regular school time for health-related activities. For example, after-school programs might include learning how to interpret the new USDA "My Plate" food guide and food labels for improved decision-making, especially in connection with better food choices.[30] Labels

might include those found on food items sold in the school. Students also could conduct tests of fluoride in their community's water supply or in bottled water. They could create a campaign to educate adults in their community about the community's water system and the benefits of fluoride. All of which impact on oral health outcomes.

The children in after-school programs could also help develop messages to send via text message, blogs, social media websites, and other outlets to extend their learning to the greater community. They might learn to do peer outreach and education on the importance of fluoride, oral hygiene, and of total oral health. While building the skills needed for effectively communicating health content, they can become empowered to be contributing members of the community as a basis for citizenship and leadership.

Perhaps one area of education that could be especially beneficial is teen parent programs where young pregnant women attend classes to finish high school. Such settings provide an opportunity to educate the expectant mother, and perhaps the father and their parents, about staying healthy during pregnancy and after delivery, as well as teaching the skills necessary to keep the infant healthy. These skills should include the oral health care of mother and baby.

Another vital arena for oral health education is in Head Start programs. These programs, often located in school facilities, promote school readiness through enhancing cognitive and social development and include health, nutrition, social, and other services. Head Start focuses on literacy as one of its program goals. With the most common health problem among Head Start children being tooth decay, incorporating oral health literacy into the program curriculum is a prime point for prevention.[31] Including oral health issues and activities in the general educational development (GED) tests are another approach to help boost oral health literacy. These standardized tests are taken in lieu of earning a high school diploma. Most applicants take test preparation classes just as many would-be college students attend scholastic aptitude tests (SAT) preparation classes. Both the courses and the tests could include questions and activities about oral health issues in the sections on writing, science, and math. Since people with less than a high school diploma are more likely to have poor or low health literacy, incorporating health information into the GED test and preparation classes is a way to improve the health and oral health literacy of this population.

AFTER-SCHOOL programs might be especially positive because many schools are not able to use regular school time for health-related activities.

Adult education presents another opportunity for oral health to be introduced in a curriculum. Adult education classes are located throughout all states. Many adult learners have specific reasons for taking courses and incorporating health literacy principles into the curriculum, which provides added value to what adult learners are seeking to understand. When adults identify for themselves and other family members the need or desire to learn about health problems or concerns, they may be more likely to embrace the health content and seek out further health information.

Finally, across the United States, 4-H youth development and Family and Consumer Science Cooperative Extension educators and their cadre of trained youth and adult volunteers are conducting after-school programs, and, in some cases, conducting in-class education. These county-based university faculty are supported by land-grant university campus-based faculty who assure their teaching skills and methods are current and the content is research-based, designed for multiple learning styles, age appropriate, and based on development stages of children and youth.

Taking Action for Our Children

K-12 schools are at the intersection of where health literacy and public health come together. Schools are a centerpiece in a child's life and are an essential part of every community's fabric. To incorporate health literacy into our schools we can act on the previously mentioned suggestions. The authors also offer additional recommendations for consideration. See **TABLE 2**.

It is known there are numerous challenges to incorporating oral health prevention and services and oral health literacy into schools, not the least of which are time, money, and the capacity to develop and evaluate programs. This will not be an easy undertaking, but one that is essential to the health of future generations. An ideal curriculum would span grades K-12 with variations appropriate to age and stage, and, perhaps, adult education, and would take into account the developmental stage of the learner. Model oral health curricula could be identified or developed based on content and process research ready for adaptation to established school curricula.

Given the relatively new stage of health literacy as a discipline and oral health literacy as a subdiscipline, consultant experts, including university faculty and their advanced students, would be needed both for materials development and for integration into the overall school program. Expertise will also be needed to test, implement, and evaluate the curriculum, determine where and when the curriculum should be placed, and identification of who would take the leadership to oversee the program. Competencies can be identified and integrated into existing curricular topics to increase the level of health literacy and especially oral health literacy.

Using the recommendations in **TABLE 2**, schools and their leaders can again rise to meet the needs of a state that has challenged vexing problems and issues. Schools can meet the need if decision-makers understand the challenge and the consequences of failing to educate youths, and the adults who influence their health, to become health literate. Schools will meet the need when decision-makers such as the California Dental Association, the State office of Oral Health, and the California Endowment adequately support them. ■■■■

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Creating a Health Literacy-Based Practice

ALICE M. HOROWITZ, PHD, AND DUSHANKA V. KLEINMAN, DDS, MSCD

ABSTRACT The California Dental Association has taken the lead to improve the oral health literacy of its residents, and dental practices play an essential role toward this end. The communication skills of the dental team are essential to increasing oral health skills of Californians. The purpose of this article is to provide suggestions and recommendations for creating and maintaining health literacy-based practices in private practice, public clinics, and dental schools.

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Oral health literacy is "the degree to which individuals can obtain, process and understand basic oral health information and services needed to make appropriate oral health decisions.[1] Good oral health is dependent upon appropriate self-care and appropriate use of professional care. Both of these actions require the application of accurate knowledge and skills — essential elements of health literacy. Because most individuals state they receive their oral health information from their dentist, the communication skills, the currency of the dentist's knowledge and the general preventive environment is critical in supporting patient proficiency in caring for their oral health.[2] This article is an updated version of one that was previously published in another journal by the authors and provides background on health literacy and proposes steps to create a health literacy-based practice.[3]

The definition of oral health literacy is consistent with the definition of general health literacy. There are several definitions for health literacy, all of which imply improved health outcomes are likely to result by fostering access to accurate and appropriate health information, and by enhancing the capacity to use this information effectively (**TABLE 1**). The communication skills of the dental team and the environment of the clinical facility are pivotal to a patient's health literacy, a set of skills that contribute to improved health outcomes.

Health literacy is comprised of multiple skill areas that include listening, understanding, writing, numeracy, or ability to use math and oral communication.[4] These skills build on existing implicit knowledge and understanding of the conditions of interest. Also, health literacy involves the ability to navigate our complex health systems and is affected by education, culture, and context of the situation. The complex

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TABLE 1

Health Literacy Definitions

WHO	"Health literacy represents the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use the information in ways which promote and maintain good health."	**World Health Organization** 1998[1]
U.S.	"The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions."	**Healthy People** 2010[2]
Oral health literacy	"The degree to which individuals have the capacity to obtain, process and understand basic oral health information and services needed to make appropriate health decisions."	**Healthy People** 2010[2]
Canada	"The ability to access, understand, appraise, and communicate information to engage with the demands of health information contexts to promote health access the life course."	**Hammond et al.** 2005[3]

[1] WHO, Health promotion glossary, Geneva, Switzerland, 1998.
[2] U.S. Department of Health and Human Services, Healthy People, 2010, second ed.
[3] Rootman I, Ronson B, Literacy and health research in Canada: where have we been and where must we go? *Can J Public Health* 96(S2):62-77, 2005.

nature of health literacy is shown in the schematic from the Institute of Medicine in **FIGURE 1**.[4] Health literacy is a shared function of social and individual factors including education, culture, and language. The interactions and roles of the health care system emphasize the importance of health care providers and policy-makers.[4]

Effective communication with patients — speaking and presenting information in a clear and appropriate format and active listening — is essential to quality dental care and patient cooperation. Communication skills of dentists are especially important because, as stated earlier, most of the public claim to obtain their oral health information from dentists.[2] Actually, the communication skills of the entire dental team are pivotal to a patient's health literacy. To benefit from the evidence-based preventive measures that exist, such as community water fluoridation and dental sealants, and to navigate through the health care system, patients need to be aware of these measures and know where to access them, and know how to use them appropriately. All of this means the dentist as the dental team leader must be well-informed with current research findings as well as have the skills to communicate them.

Health literacy was given wide visibility with the 2011 IOM report, "Advancing Oral Health in America."[5] The panel was convened to recommend strategic actions for the Department of Health and Human Services (DHHS) in oral health. While the report is directed at DHHS, many of the recommendations are applicable to state and local departments of health as well as clinical practice. For example, the report recommends providing professional education in patient-provider communication skills in a culturally and linguistically manner that results in improved oral health behaviors among diverse populations. This recommendation is consistent with Healthy People 2020 objectives shown in **TABLE 2**.[6]

A recent national survey of U.S. dentists regarding their use of communication techniques demonstrated a general low use of recommended procedures.[7]

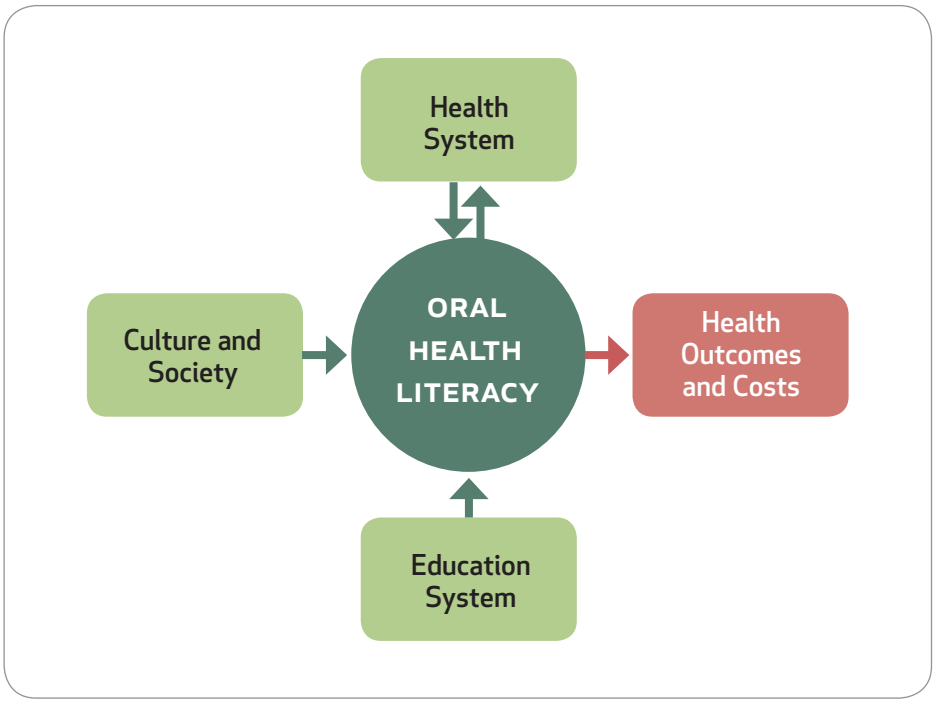

FIGURE 1. Health literacy framework. *(Adapted from Institute of Medicine. Health Literacy: A prescription to end confusion. Washington, D.C., National Academies Press, Page 34, 2001.)*

TABLE 2

Healthy People 2020 — Topic Area: Health Communication and Health IT Selected Objectives

HC/HIT-1: (Developmental) Improve the health literacy of the population	
HC/HIT-1.1	Increase the proportion of persons who report their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition
HC/HIT-1.2	Increase the proportion of persons who report their health care provider always asked them to describe how they will follow the instructions
HC/HIT-1.3	Increase the proportion of persons who report their health care provider's office always offered help in filling out a form
HC/HIT-2: Increase the proportion of persons who report that their health care providers have satisfactory communication skills	
HC/HIT-2.1	Increase the proportion of persons who report that their health care provider always listened carefully to them
HC/HIT-2.2	Increase the proportion of persons who report that their health care provider always explained things so they could understand them
HC/HIT-2.3	Increase the proportion of persons who report that their health care provider always showed respect for what they had to say
HC/HIT-2.4	Increase the proportion of persons who report that their health care provider always spent enough time with them
HC/HIT-3: Increase the proportion of persons who report that their health care providers always involved them in decisions about their health care as much as they wanted.	
HC/HIT-4: (Developmental) Increase the proportion of patients whose doctor recommends personalized health information resources to help them manage their health.	

U.S. Department of Health and Human Services (2010). Health communication and health information. Retrieved from http://www.healthypeople.gov/2020/topicsobjectives2020/object inveslist.aspx?topicid-18.

Two-thirds of dentists practiced more traditional communication techniques such as providing print materials, using models or radiographs to explain concepts and speaking slowly and in simple language. However, less than one-fourth of dentists used any of the "teach-back" methods. Teach-back is a procedure thought to help ensure patient understanding and compliance. Few had taken a course in communication skills, but the majority was interested in doing so.

Why Is Health Literacy Important?

Health literacy is an essential component of patient-centered care.[4,7,8] Patient-centered care was highlighted as one of six aims to improve our health care system identified in the IOM's 2001 report, "Crossing the Quality Chasm: A New Health System for the 21st Century."[8] The report calls for a transformation of our health care system to better meet patient needs, and be more available, more responsive, reliable, integrated, and safe. Patient-centered health care was defined as "providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions." Achieving this requires clear communication and an environment that supports a positive patient experience.[8] Being able to understand health information and how to obtain services is critical to all aspects of personal health management.[3,4,9]

Poor or low health literacy contributes to disease and related services, resulting in a high cost to the nation. It is estimated that the cost of low health literacy ranges between $106 billion to $238 billion annually.[10] This represents between 5.4 percent to 12.2 percent of all personal health care expenditures. More information is known about the impact of low health literacy on general health outcomes than on oral health outcomes.[3,7] However, studies have shown that low oral health literacy is associated with knowledge, dental visits, and severity of dental decay.[11-14] Now health literacy is recognized as an important determinant of health. Health literacy skills vary across different health topics including diabetes, cancer, heart disease, and oral health. Individuals at highest risk for low levels of health literacy include 65-year-olds and older, those with less than a high school education, and those belonging to minority groups.[13] The first national survey on health literacy, a component of the 2003 National Assessment of Adult Literacy (NAAL) showed Hispanic adults had a lower average health literacy than adults in any other group. This factor is especially important for states like California that have a large proportion of Hispanics. The demographic increases in racial/ethnic minorities and persons 65 years of age and older will continue to challenge our population's health literacy.

The 2003 NAAL survey also revealed that more than 75 million U.S. adults have limited health literacy.[9] For example, only one in 10 U.S. adults are proficient in understanding health-related written materials. Further, one in three Americans have difficulty understanding and applying health information. These findings illustrate the mismatch between the capability of a large proportion of the U.S. public and the demands of the health

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care system. Most health care information is often complex and written at reading levels far exceeding the abilities of the majority of American adults.[9,15] The use of dental terms such as dental caries and gingivitis can act as barriers to the understanding of most patients. The words and media used to describe emerging science-based findings and patient information and our health education and other print material are the profession's tools for effective communication. These materials include newsletters, informed consent forms, insurance forms, health histories, and health instructions for home care after a dental procedure.

The demands of health care providers and health care systems are complex and can challenge even those who are well-educated. At any given time, anyone regardless of level of education, age, or racial ethnic characteristics may be challenged at some time in their interface with the health care system.[16] The problem of limited health literacy can be best described as a functional mismatch between the skills of the individual and the demands of the health care system including providers and their staff.[4,15,16] The exchange of information depends on the capacity of both the sender and the receiver and is affected by the setting such as a dental patient being in a prone position, context (a dental environment that is a helping one versus one that is not) and the format of the information delivered, among other factors. The interpersonal and communication skills of the provider and the ability of patients to understand and use the information are critical to the process. Most of us in the profession assume that the oral instructions and information are clear, listened to, and understood. This assumption of course is not always valid, especially in dental care settings where many are ill at ease, and even fearful. It can be difficult to hear and understand what is being said during stressful times and even more difficult to compose and ask relevant questions. Many, if not most, patients simply have no experience in how to ask questions or may be reluctant to admit that they do not understand what has been explained. Formal training in communication skills would allow us to assess the abilities of our individual patients and work with our team members to present effective and tailored oral, written, and other forms of health information.

THE USE OF
dental terms such as dental caries and gingivitis can act as barriers to the understanding of most patients.

All health care providers are either overtly or inadvertently intimately involved in health literacy. The complexity of maintaining health increases for individuals with chronic conditions who frequent multiple health care and social service providers. The focus on health literacy comes at a time when we are seeing an increase in chronic diseases, our country's demographics are rapidly changing to a more diverse, older and less-educated population, and the requirements of self-care and health services are increasing.[4] These factors create the perfect storm. Formal guidelines to enhance health literacy in dental practices do not yet exist; however, there are several steps that can be taken to move toward a more health literacy-based practice.

Taking Stock of Your Practice to Improve Communications With Your Patients

Health literacy is not just about individual patients, but also includes health care providers and staff and other decision-makers. As the team leader, a dentist has an opportunity and responsibility to conduct a needs assessment concerning communication practices and user friendliness of the office or clinic. This might include an assessment of office materials — print and video, an environmental scan of the facility, a review of the patient's health literacy levels, and an assessment of how the dentist and the team can improve collaborative decision-making with their patients.[3,16,17] This assessment can be conducted in phases. The Agency for Healthcare Research and Quality has developed a valuable tool, "Health Literacy: A Universal Precautions Toolkit," based on the premise that, given the high prevalence of low health literacy and of the effects of health care environment on all patients that practitioners should apply these methods for all patients.[18] Although the toolkit does not address the dental environment it is very useful and can be adapted.

Create and Use User Friendly Health Information, Education, and Forms

Oral health information is conveyed in a variety of forms such as print materials, the Internet, audiovisuals, and the spoken word.[19-21] All of these methods can and should be executed in plain language. Plain language is a strategy for making written and orally communicated information easier to use and understand. A document written in plain language, such as an educational leaflet on preventing gingivitis or a DVD demonstrating how to clean an infant's mouth, is one that the user can find the information they need, understand it, and act appropriately on that understanding.[19-21] The key elements of a product written in plain language include:

- Present the most important points first;
- Break down complex information into understandable segments;
- Use only simple language (no jargon) to define technical terms;
- Use the active voice; and
- If long dental or medical terms must be used, explain and spell them phonetically in parenthesis.

Create a User-Friendly Physical Environment

Whether one sees patients in a private practice setting, hospital, or a community health center, one should ensure that the environment is helping, supportive, and user friendly.[16,17] A user-friendly environment can be achieved by using some simple but important steps:

- Use real people to answer the phone except for after hours;
- Ensure recorded phone messages are clear and friendly;
- Offer at least some after-hour appointments for those who cannot come during the working week;
- Provide clear directions to the office or clinic;
- Urge patients to write down and bring to the appointment any questions they might have about their oral health;
- Use health history and informed consent forms that are in plain language;
- Use only clearly written words (i.e., gum disease rather than periodontal disease) and visible signs and directions for going from one place to another;
- Use universal symbols where feasible and maps and color coding of various departments in large health facilities can be useful;
- Provide help in completing and or understanding all forms and educational materials; and
- Provide help for transportation such as calling a taxi or instructions for public transportation.

Emerging Measures to Assess Your Patients' Level of Health Literacy

Ideally, obtaining an indication of a specific patient's level of health literacy would help tailor your approach to their care. Several instruments have been developed to evaluate the oral health literacy of an individual for use in research settings.[22-24] These instruments tend to be used in research rather than in a clinical setting. The REALD-30 (Rapid Estimate of Adult Literacy in Dentistry) and REALD-90, are word-recognition instruments patterned after the Rapid Estimate of Adult Literacy in Medicine (REALM) which deals with general health. The TOFHLiD (Test of Functional Health Literacy in Dentistry) is patterned after the TOFHLA (also related to general health), and consists of a reading comprehension instrument. Most agree that these instruments do not actually measure health literacy; rather, they provide approximations of reading skills relative to health content.[25]

URGE PATIENTS
to write down and bring to the appointment any questions they might have about their oral health.

A different assessment approach applicable to clinical settings was developed by Chew and colleagues and resulted from their evaluation of a series of simple questions to identify patients with low health literacy.[26] Chew's questions have been used in several studies related to general health but none in oral health. The authors have adapted these questions to make them less hospital or medically focused as shown in **FIGURE 2**. The questions may help identify individuals who need extra help in understanding their oral health needs and requisite skills they need to practice for improved oral health and could be included in the health intake form or used on a separate form. If either questions 1 or 2 are in the "quite sure" or "extremely sure" category, the patient likely will have little problem understanding written instructions or educational materials. If they respond in the first three categories, "not at all sure," "a little sure," or "somewhat sure," you will know that extra assistance is needed to ensure that the patient understands what is being conveyed. Similarly, regarding question 3, if the patient responds in any of the last three options, the recommendations in the following section need to be applied. In a follow-up study, Chew and colleagues found that a single question ("How confident are you filling out medical forms by yourself?") may be useful for detecting patients with low levels of health literacy.[27]

Another approach to determine how the dentist and their staff are doing is to use the questionnaire developed by Makoul and colleagues shown in **FIGURE 3**.[28] This questionnaire allows direct feedback from patients and adds another critical piece of information. If, for example, a patient gives a 1, 2, or 3 to any of the items, the dentist and dental team should take immediate steps to correct the situation. If more than one patient respond to the same item "Treated me with respect" in the 1, 2, or 3 category, the dentist needs to assess the situation immediately.

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Validated Health Literacy Questions for Patients

1. How sure are you that you can complete medical forms correctly when you fill them out by yourself,
   - ❑ Not at all sure
   - ❑ A little sure
   - ❑ Somewhat sure
   - ❑ Quite sure
   - ❑ Extremely sure

2. How sure are you that you can follow the written instructions on a bottle of Tylenol or aspirin?
   - ❑ Not at all sure
   - ❑ A little sure
   - ❑ Somewhat sure
   - ❑ Quite sure
   - ❑ Extremely sure

3. How often do you have someone help you read printed materials that your health care provider gave you?
   - ❑ Never have someone help
   - ❑ Occasionally have someone help
   - ❑ Sometimes have someone help
   - ❑ Often have someone help
   - ❑ Always have someone help

Chew LD, Bradley KA, Boyko EJ, Brief questions to identify patients with inadequate health literacy. *Family Med* 36(8):588-94, 2004.

FIGURE 2. Validated health literacy questions for patients.

Communication Assessment Tool

Communication with patients is a very important part of quality oral health care. We would like to know how you feel about the way your dental care provider communicated with you. Your answers are completely confidential, so please be open and honest.

Please use this scale to rate the way the dentist or dental hygienist communicated with you.

Circle your answer for each item below.

	1 Poor	2 Fair	3 Good	4 Very Good	5 Excellent	
The dentist/dental hygienist	1	2	3	4	5	NA
Greeted me in a way that made me feel comfortable	1	2	3	4	5	NA
Treated me with respect	1	2	3	4	5	NA
Showed interest in my ideas about my oral health	1	2	3	4	5	NA
Understood my main health concerns	1	2	3	4	5	NA
Paid attention to me (looked at me, listened carefully)	1	2	3	4	5	NA
Let me talk without interruptions	1	2	3	4	5	NA
Gave me as much information as I wanted	1	2	3	4	5	NA
Talked in terms I could understand	1	2	3	4	5	NA
Showed me how to do oral hygiene procedures	1	2	3	4	5	NA
Had me demonstrate how to do the oral hygiene procedures	1	2	3	4	5	NA
Checked to be sure I understood everything	1	2	3	4	5	NA
Encouraged me to ask questions	1	2	3	4	5	NA
Involved me in decisions as much as I wanted	1	2	3	4	5	NA
Discussed next steps, including any follow-up plans	1	2	3	4	5	NA
Showed care and concern	1	2	3	4	5	NA
Spent the right amount of time with me	1	2	3	4	5	NA
The dental staff						
Treated me with respect	1	2	3	4	5	NA

Communication assessment tool. (Courtesy of Gregory Makoul, PhD, Chicago, Ill. Copyright 2004.)

FIGURE 3. Communications assessment tool.

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The questionnaire can be used anonymously and provide information that can be used for practice changes. It can be used as an initial assessment tool as well as after you have made changes in communication practices to determine how you are doing.

In addition to using these assessment tools, office staff might observe cues from patients who have trouble understanding the written word. For example, a patient may not be able to read well if he or she takes a long time to complete a health history or informed consent form and or does not complete it. Office staff should be trained to be alert to such occasions and to offer help in a noncondescending manner to complete the form. Some patients hide the fact that reading is difficult and upon receiving educational materials or an informed consent form on a given procedure the patient says, "I will take it home and read it, I forgot my glasses," this may be an indication that reading is a very difficult task for them. If a patient has skipped referrals or tests, they may not have understood your instructions or are unsure about how to proceed.[4]

Tips to Help Your Patients Make Healthy Decisions

The dentist and their staff can facilitate healthy decision-making by their patients and avoid miscommunication. First, ask a patient how they like to learn. Do they learn best by watching a video, seeing diagrams, reading, searching on the Internet, a verbal one-to-one exchange, or a combination of these methods? This information should be noted in their health history. Second, use patient-centered strategies to explain procedures, alternative procedures and the potential risks of each. The following actions will help the dentist communicate with their patients:

- Use "living room" language;
- Listen actively to what your patient has to say;
- Slow down and use short statements;
- Provide information in a logical, step-by-step manner;
- Use visual aids when appropriate and based on patient preference; and
- Use the "teach-back" method. This means, for example, after you have explained and demonstrated to the mother of a young child how, where, and when to look for white spots in her child's teeth, ask her to explain the procedure to you and preferably have her demonstrate it to you. Similarly, when you teach a mother how to clean her child's mouth, ask her to demonstrate how to do it. Or, if you have explained how to clean around a fixed bridge, you not only explain it and demonstrate it but also ask the patient to explain and demonstrate it to you. On subsequent visits, of course, it is essential these skills are assessed again and instructions are reinforced. All of these activities should be documented in the patient's record.
- Never ask a question that has a yes/no response, like "Do you understand?" or "Did you brush your teeth this morning?" These kinds of questions will almost certainly get a nod or verbal yes. Instead, ask the patient "When did you last brush your teeth?" If patient education videos are used, personal interaction with the patient should be built into the session. For example, ask the patients to explain to you what they learned about preventing gingivitis after they viewed a video on the subject. Or ask them to demonstrate something in response to the instruction.[4,19-21,29]

USE PATIENT-CENTERED strategies to explain procedures, alternative procedures and the potential risks of each.

Next Steps

Before embarking on making changes it is best to formulate a plan of action. With the input gained by the needs assessment of your practice, you will be able to develop an action plan. Your plan should have a goal, specific objectives and actions, a timetable and an evaluation process. For example, your goal may be to increase capacity of office/clinic staff to improve oral health literacy of patients by focusing on disease prevention. Steps to be taken to address this action could include:

- Discuss health literacy with your staff. Review what it is and what you want to achieve;
- Identify how to measure the impact of your action plan. This could include compliance with self-care instructions, etc.;
- Determine health literacy capacity of your patients and make adjustments accordingly;
- Provide updated, evidence-based scientific information on preventive procedures readily available to staff;
- Review all print materials for patients to determine whether they are written in plain language;
- Eliminate documents that do not qualify and purchase or prepare new materials;
- Provide training in communication skills for staff members. Ask local or state dental association to offer such courses; and
- Review the office environment to determine its user friendliness and

that it fosters active communication between patients and the dentist's team. Make adjustments to the setting and appointments as appropriate.

Once the goal has been established, action steps and a timetable, identify the roles and responsibilities of each team member and set aside time to review the status of the office plan's progress. A team approach is necessary to improve oral health literacy. While all members of your staff have a responsibility to improve health literacy, as the team leader you are the role model for creating health literacy-based practice.[3]

Summary

An estimated 90 million Americans have low health literacy skills. Often, these are the very individuals who have the highest treatment needs and little or limited public or private insurance. The nation's health promotion and disease prevention objectives, Healthy People 2020, call for action to be taken to improve health literacy.[6] Specific objectives included in **TABLE 2** focus on health literacy and call for increasing the proportion of persons with proficient health literacy and improving the ability of providers to communicate with their patients.[4] Research on oral health literacy is expanding quickly and a revised research agenda is needed.[25] It has been learned from studies that physician-patient communication and adherence to a prescribed regimen is associated.[29] Further, we have learned that low oral health literacy among adult patients seeking dental care affects the ability of patients to process and understand oral health information and that individuals with low health literacy are less likely than those with higher levels of literacy to have had a dental visit in the past year.[12]

The American Dental Association's National Oral Health Literacy Advisory

Committee is developing recommendations and programs to support the profession in this endeavor and to address the Healthy People 2020 objectives on this topic. Further, the California Dental Association has developed its own plan to improve oral health literacy among its residents. Oral health literacy is the new imperative for our profession, one that provides us with the opportunity to build on the foundation of our practices and improve our communication with our patients. ■■■■

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ADDITIONAL RESOURCES

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Department of Health and Human Services Proceedings of the Surgeon General's workshop on improving health literacy. surgeongeneral.gov/topics/healthliteracy/toc.html. Accessed Feb. 1, 2012.
A Family Physician's Practical Guide to Culturally Competent Care. This guide includes cultural competency curriculum modules to help increase family physicians with awareness, knowledge and skills in cultural competency. https://cccm.thinkculturalhealth.hhs.gov/IDVDUsers/GUI_Help_IDVD.asp. Accessed Feb. 22, 2012.

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Maryland Dentists' Knowledge of Oral Cancer Prevention and Early Detection

CATHERINE MAYBURY, MPH; ALICE M. HOROWITZ, PHD; ALICE F. YAN, PHD; KERRY M. GREEN, PHD; AND MIN QI WANG, PHD

ABSTRACT To reduce the morbidity and mortality associated with oral cancers, dentists must have accurate knowledge and skills to detect and diagnose oral cancers at early stages. The authors' study found gaps in dentists' knowledge of risk factors and procedures for diagnosing oral cancers. Increasing health literacy for oral cancers among dental professionals may lead to increased health literacy for oral cancers among the public because dental professionals are a key source of oral health information for the public.

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Health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."[1,2] Health literacy involves a number of skills including reading, writing, listening, numeracy, oral communications, and navigating the increasingly complex health care system.[3] These skills are critical for people to be able to access health information and use it to promote and improve their health.[4] While health literacy is often defined and discussed in terms of an individual's ability to read, understand, and use health care information, it is much broader than this.[3] Health literacy is a function of the individual patient's understanding and skills; the provider's knowledge, skills, and ability to communicate effectively; and the demands placed on patients by the health care system.[3]

A recent study provided evidence that low oral health literacy among adults seeking dental care affects their ability to understand and use oral health information, and numerous studies indicate that low health literacy can result in poorer health outcomes.[3,5] Dentists play a crucial role with regard to oral health literacy because studies have found that dentists are a key source of health information for their patients.[6] Thus, dental providers' knowledge must be accurate and current to provide the best evidence-based care and health information to their patients.[4,7]

Oral cavity and oropharyngeal cancer (hereafter referred to as "oral cancer") is cancer of the lips, oral cavity, and pharynx and can occur on the tongue, floor of the mouth, soft palate, tonsils, salivary glands, oropharynx, mesopharynx, and hypopharynx. It is the eighth most-common cancer in the United States and accounts for approximately 2 percent of

all diagnosed cancers.[8] It is estimated that there were 36,540 new cases and 7,880 deaths from oral cancers in the United States in 2010.[8] The primary risk factors for oral cancers are past and present use of all forms of tobacco products; excessive use of alcohol; exposure to viruses such as human papillomavirus (HPV); exposure to ultraviolet radiation; low consumption of fruits and vegetables; and, age older than 45 years.[9-12]

Oral cancers could benefit from increased health literacy of both the public and health care providers. The results of the 2008 National Health Interview Survey found that only 29 percent of adults aged 18 years or older had ever had an oral cancer examination in which a physician, dentist, or other health professional pulled their tongue to each side to examine its base or palpated their neck.[13] If patients are unaware that an oral cancer examination exists, they are unlikely to ask their provider about such an exam.[7,14] Further, if patients are unaware of oral cancers, they are unlikely to be able to make appropriate health decisions to prevent this disease.[7] Additionally, studies have found that adults have relatively little accurate knowledge of risk factors for and signs and symptoms of oral cancers.[15] Lastly, previous studies indicate that dentists are not as knowledgeable of risk factors for oral cancers and diagnostic procedures as they should be.[7,14]

The state of Maryland provides a good model of how to address progress in disease prevention through health literacy assessments and interventions. Maryland recently launched a five-year state oral health plan that outlines a vision of improved oral health for all Marylanders by focusing on three key areas: access to oral health care, oral disease and injury prevention, and oral health literacy and education.[16]

Progress has been made in Maryland in the past two decades in reducing the morbidity and mortality associated with oral cancers.[17] However, key epidemiological data indicate that more work remains. For example, Maryland's oral cancer mortality rate decreased from 3.9 percent in 1995 to 2.8 percent for the period 2004-2006.[17,18] While the mortality rate for oral cancers has decreased, it is still high, with Maryland ranked 20th among the states and the District of Columbia.[17]

IF PATIENTS ARE unaware that an oral cancer examination exists, they are unlikely to ask their provider about such an exam.

Other indicators that more work remains are disparities in oral cancer mortality rates, the low percentage of individuals whose tumors are diagnosed at the earliest stage, the low percentage of adults having an oral cancer screening exam in the past year, and the rising rates of oral cancers associated with HPV. Maryland's mortality rate was higher in men than in women (4.2 versus 1.6), and in blacks than in whites (3.7 versus 2.6).[17] Although regular screening examinations increase the chances of detecting oral cancers early, only 40 percent of adults aged 40 years and older in Maryland reported having an oral cancer screening exam in the past year.[19-20] The prognosis for those diagnosed with oral cancers depends largely on the clinical stage of the tumor at diagnosis. In the United States, the five-year survival rate ranges from 82 percent for patients diagnosed at a localized stage to 52 percent for patients with regional lymph node involvement, to 27 percent for patients with distant metastasis.[17] In Maryland, only 27 percent of all oral cancer lesions are diagnosed at the earliest stage.[21] Finally, rising rates of oral cancers associated with HPV in the United States warrant investigation into dentists' knowledge and screening practices related to this risk factor.[22-25]

This study is based on a 1995 Maryland study.[26] As a result of the previous study, several interventions were developed including training dentists throughout Maryland on how to perform oral cancer screening examinations. This study collected data to determine if progress had been made. The objective of the current study was twofold: first, to examine the association between Maryland dentists' background characteristics and their knowledge of risk factors for oral cancers and procedures used to diagnose oral cancers; and, second, to investigate the association between dentists' knowledge of risk factors and diagnostic procedures and their perception of their oral cancer education, training, and the currency of their knowledge.

Methods

Participants

The Maryland Sate Dental Association randomly selected 1,169 general practice dentists from the total number of general practice dentists in Maryland (N=2,500). The sample size was calculated based on an anticipated response rate of 40 percent and an error rate of three percent. Dentists not currently in clinical practice on Sept. 1, 2009, and dental specialists, such as oral surgeons, orthodontists and pedodontists, were excluded from the study. The University of Maryland, College Park Institutional Review Board, approved this study.

Survey

The authors modified a widely used survey instrument created by Horowitz and colleagues for readability and layout.[6] They added two new areas of interest: HPV as a risk factor for oral cancers and the use of adjunctive procedures in detecting and diagnosing oral cancers. Because of the increasing evidence that HPV plays a role in the etiology of some oral cancers, the authors wanted to assess if dentists were aware of HPV as a risk factor for oral cancers and if they inquire about HPV when taking a medical history. In recent years, a large number of adjunctive procedures have become available on the market. Dental experts reviewed the instrument and questions were modified based on their feedback.

Procedure

The authors mailed the survey and cover letter to participants (n=1,169) in December 2009 and asked them to return the surveys within two weeks. Four weeks later, the authors mailed the complete mailing to all nonrespondents; three weeks after this, a complete mailing was sent to all nonrespondents again. The survey was a self-mailer (designed to be returned without an envelope) with the return address and postage printed on the back page of the survey.

After removing duplicate entries from the sample (n=12), the authors mailed surveys to 1,157 dentists. They received 619 completed surveys, a response rate of 53.6 percent. The second mailing contained an incomplete version of the survey due to an inadvertent printer error. The authors received 156 surveys from the second mailing. These surveys were invalid and not used in the analysis. Thus, the authors received 463 usable surveys, for an effective response rate of 40.1 percent. Of the 463 dentists in the sample, 76 percent were men. Sixty-two percent were owners of a solo practice and 36 percent practiced in partnerships. Sixty-nine percent of the dentists graduated from dental school between 1970 and 1989. Eighty-six percent of respondents were white. Twenty-nine percent of respondents reported having taken an oral cancer continuing education (C.E.) course in the past 12 months and 54 percent reported doing so in the past two to five years (**TABLE 1**). No incentives were provided to subjects to participate in this study.

TABLE 1

Selected Characteristics of General Dentists

Background characteristics	Number	Percentage*
SEX		
Male	349	76
Female	107	24
TIME OF GRADUATION		
Before 1970 (1968 & 1969)	7	2
1970 to 1979	152	34
1980 to 1989	159	35
1990 to 1999	68	15
2000 to 2009	64	14
TYPE OF PRACTICE		
Solo practice	286	62
Group private practice	167	36
Community health center	3	1
Other	3	1
INTERVAL SINCE LAST ORAL CANCER CONTINUING EDUCATION COURSE		
Within the past 12 months	102	29
Two to five years	190	54
Five or more years	54	15
Never taken a course	2	<1
RACE/ETHNICITY		
White	380	86
Asian/Pacific Islander	36	8
Black	14	3
Hispanic	2	.5
Other	9	2

**Some groups of percentages do not equal 100 due to rounding.*

Measures

The following measures were evaluated:

1. *Knowledge of oral cancer risk factors.* To develop an index of knowledge of risk factors for oral cancers, the authors assessed responses to 15 questions. Each correct answer received a score of "1," which were summed to create an index with values that ranged from one to 15. Based on the number of correct answers, dentists were classified into one of three approximately equal categories

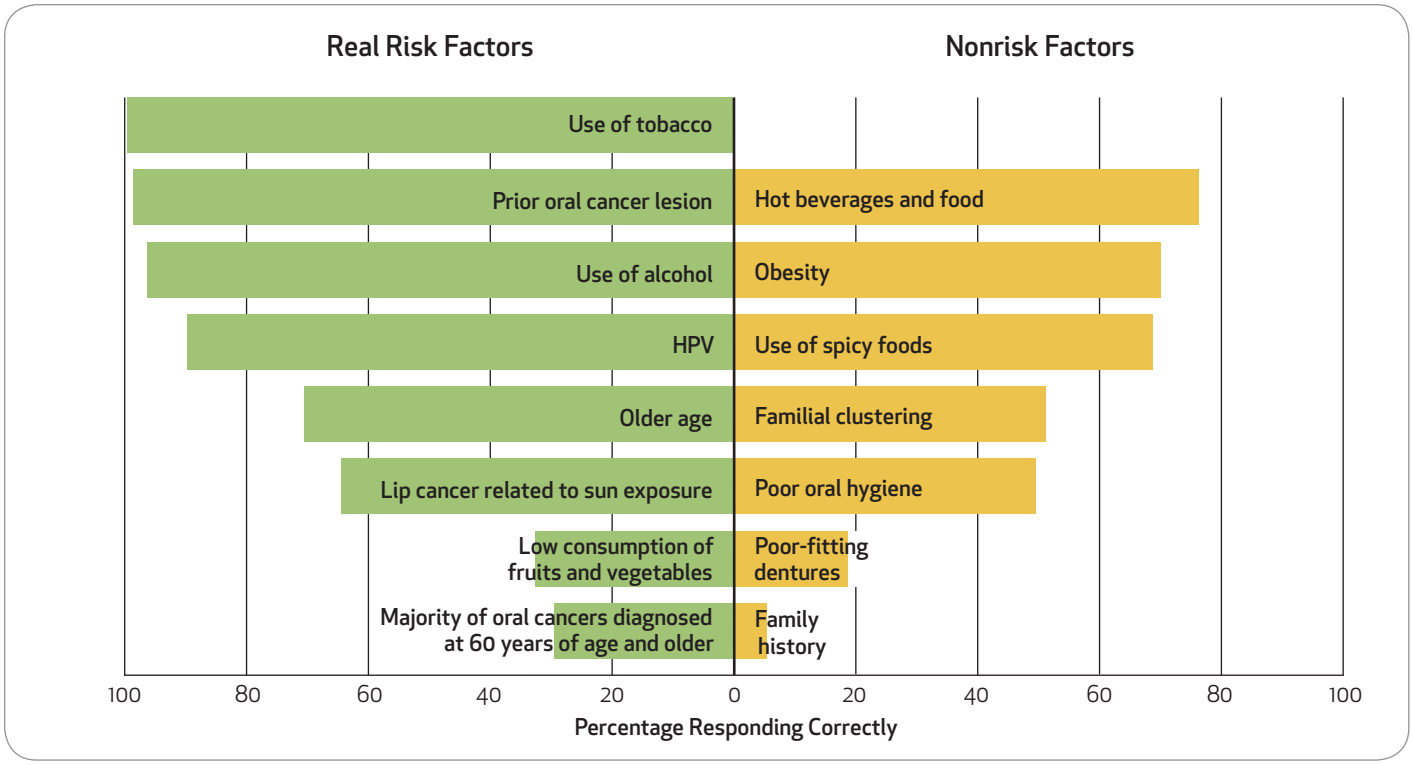

FIGURE 1. Dentists' knowledge of oral cancer real risk and nonrisk factors.

of knowledge of oral cancer risk factors: low (1-8 items), medium (9-10 items) and high (11-15 items). Eight questions asked about real risk factors, those supported by scientific evidence. The other seven questions asked about nonreal risk factors, i.e., risk factors that are not supported by research and are common myths among the public and the dental profession. Risk factors are listed in **FIGURE 1**.

2. *Knowledge of oral cancer diagnostic procedures.* To develop an index of knowledge of diagnostic procedures for oral cancers, the authors assessed responses to 10 questions. Each correct answer received a score of "1" which were summed to create an index with values that ranged from one to 10. Based on the number of correct answers, dentists were classified into one of three approximately equal categories of knowledge of oral cancer diagnostic procedures: low (1-5 items), medium (6-7 items), and high (8-10 items). The 10 diagnostic procedures are listed in **FIGURE 2**.

3. *Combined knowledge index.* The authors also created an index that combined the knowledge of risk factors and the knowledge of diagnostic procedure indices. The combined knowledge index categorized responses to the 25 knowledge questions into three approximately equal categories: low (1-14 items), medium (15-18 items), and high (18-25 items).

4. *Dentists' opinions.* The authors assessed responses to 10 questions relating to dentists' opinions of their oral cancer education, training, and the currency of their knowledge. Each question was a five-point Likert item with response categories of "strongly agree," "agree," "don't know," "disagree," and "strongly disagree." The authors grouped "strongly agree" and "agree" responses to identify agreement with an item and grouped "disagree and strongly disagree" responses to identify disagreement with an item. "Don't know" responses were considered an intermediate value between agree and disagree on the five-point Likert item during analysis.

5. *C.E. training.* The authors assessed responses to four questions about past C.E. courses and interest in future C.E. courses.

6. *Background characteristics.* The survey also captured information on the respondent's gender, type of dental practice, year of graduation from dental school, and interval since their last oral cancer C.E. course.

Statistical analysis. The authors first examined frequencies to assess the extent to which dentists responded correctly to questions on risks for oral cancers and diagnostic procedures. The authors then examined the association between background characteristics and the likelihood of getting a high (versus low/medium) score on three indices: knowledge of oral cancer risk factors, knowledge of oral cancer diagnostic procedures, and a combined knowledge index, with both univariate and multivariate logistic regression models. The dependent variable was the likelihood of getting a high (versus low/medium) score on three indices and the independent variables

were dentists' background characteristics. For univariate logistic regression model, the unadjusted odds ratios (ORs) and 95 percent confidence intervals (CIs) were examined. Multivariate logistic regression model was conducted to identify the most significant background characteristic variables. Adjusted ORs and 95 percent CIs were examined to assess the significance of the relationships. In addition, the authors used the chi-square test to determine if there was a relationship between the three knowledge indices and dentist's perceptions of how current their knowledge was. All statistical analyses were conducted using SAS version 9.2 (SAS Institute Inc., Cary, N.C.), and the significance level was set at $p<0.05$.

Results

Bivariate Analysis

Knowledge of oral cancer risk factors. On average, dentists knew six of the eight real risk factors and four of the seven nonreal risk factors for oral cancer (FIGURE 1). On average, they correctly identified nine of the 15 risk factors, with approximately 38 percent correctly identifying 11 or more risk factors (TABLE 2). More than 95 percent of respondents knew that use of tobacco products, a prior oral cancer lesion and use of alcohol are risk factors for oral cancers. Knowledge of three risk factors, HPV, older age and lip cancer related to sun exposure, was moderate (response rates of 88 percent, 71 percent, and 64 percent, respectively), but less than one-third knew that the majority of oral cancers are diagnosed in people 60 years of age and older. With regard to nonreal risk factors, 76 percent of dentists knew that consuming hot beverages and foods is not a risk factor and 69 percent knew that obesity and use of spicy foods are not risk factors. However, only 39 percent knew that poor-fitting dentures is not a risk factor.

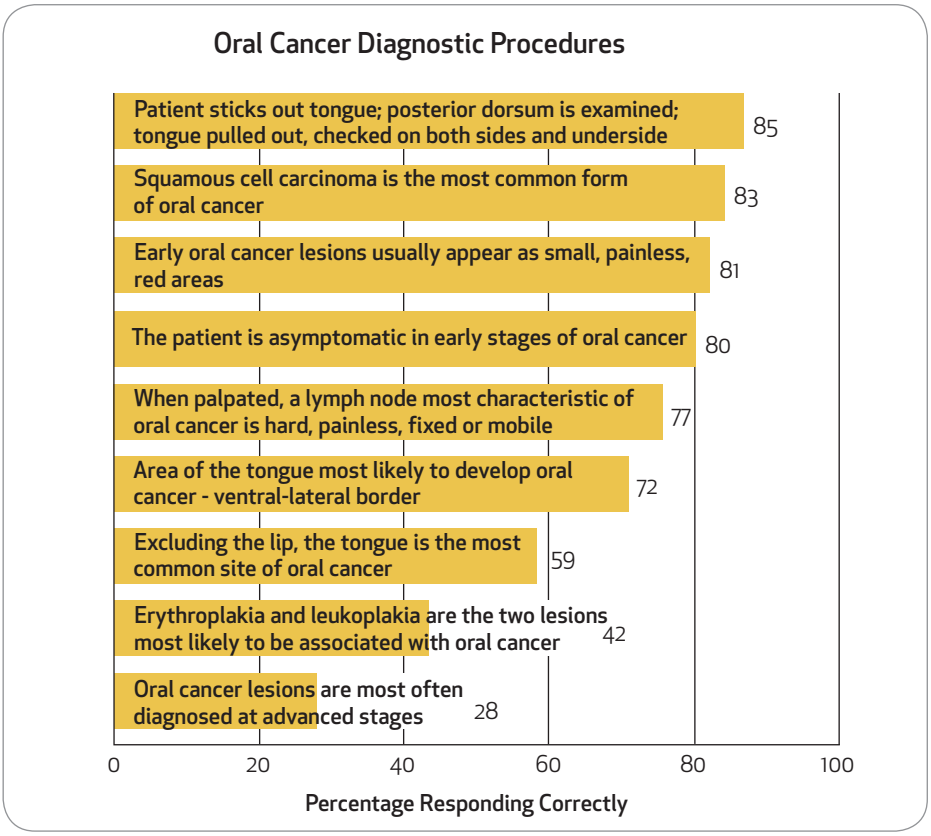

FIGURE 2. Percentage of dentists who provided correct responses to selected items about knowledge of oral cancer diagnostic procedures.

TABLE 2

Classification of General Practice Dentists by Scores on Risk Factors and Diagnostic Procedures Indices

Index: Knowledge of oral cancer risk factors	Index Knowledge of Oral Cancer Diagnostic Procedures			All dentists
	Low score (1–5 Items)	Medium score (6–7 Items)	High score (1–8 Items)	
	Percentage of All Dentists			
Low score (1-8 Items)	37 (10.1%)	37 (10.1%)	40 (11.0%)	114 (31.2%)
Medium score (1-8 Items)	29 (7.9%)	43 (11.8%)	41 (11.2%)	113 (31.0%)
High score (1-8 Items)	31 (8.5%)	45 (12.3%)	62 (17.0%)	138 (37.8%)
All dentists	97 (26.6%)	125 (34.2%)	143 (39.2%)	365 (100.0%)

Knowledge of oral cancer diagnostic procedures. On average, dentists correctly identified seven of the 10 diagnostic procedures for oral cancers. Approximately 39 percent of dentists correctly identified eight or more diagnostic procedures (TABLE 2). More than 80 percent of dentists

knew the steps for examining the tongue for oral cancer and that early oral cancer lesions usually appear as small, painless, red areas. More than 70 percent knew that a lymph node most characteristic of oral cancer metastasis is hard, painless, and mobile or fixed when palpated, and that the area of the tongue most likely to develop oral cancer is the ventral-lateral border. However, less than half of respondents knew the two lesions most commonly associated with oral cancer (erythroplakia and leukoplakia) (**FIGURE 2**).

Patterns of knowledge of oral cancer risks and diagnostic procedures. To investigate the relationships between dentists' knowledge of risk factors and diagnostic procedures, the authors cross-classified dentists by the three categories (low, medium, and high) of the two oral cancer knowledge indices (risk factors and diagnostic procedures). **TABLE 2** shows the percentage of all dentists by their joint distribution of these two characteristics. Of the 39 percent of dentists that had consistent levels of knowledge on both indices, approximately 17 percent had a consistently high score. For the 61 percent of dentists with inconsistent levels of knowledge, approximately 38 percent had better levels of knowledge of risk factors than diagnostic procedures while approximately 40 percent had better levels of diagnostic procedures.

Background characteristics and knowledge of oral cancer. To assess the effects of background characteristics on dentists' levels of knowledge of risk factors for oral cancer and procedures used to diagnose oral cancers, the authors performed bivariate and multivariate logistic regression analysis. The four background characteristics were gender, type of practice, year of graduation from dental school, and interval since their last oral cancer C.E. course. The reference population for these analyses was male dentists, in solo practice, graduated from dental school between 1968 and 1979, and had taken an oral cancer C.E. course within the past 12 months. The authors chose dentists with these characteristics to be the reference population to maximize the number of cases in the reference group and minimize risk.

Results from the bivariate logistic regression analysis show time of graduation was the most consistent predictor of the likelihood of getting a high score on the three knowledge indices. Particularly, dentists who graduated between 2000 and 2009 were more likely to receive a high score on three indices than dentists who graduated before 1979. Dentists who graduated between 1980 and 1989 were also more likely to receive a high score on the diagnostic procedures knowledge test. No other associations were statistically significant in the bivariate models (**TABLE 3**).

TABLE 3

Results of Bivariate Logistic Regression Analysis

Background characteristics	Odd Ratio and 95% CI for Knowledge Indexes					
	Risk factors		Diagnostic procedures		Risk factors and diagnostic procedures combined	
	Unadj. odds ratio	95% CI	Unadj. odds ratio	95% CI	Unadj. odds ratio	95% CI
GENDER						
Male	1.0		1.0		1.0	
Female	.93	0.61–1.43	1.51	0.98–2.33	1.39	0.88–2.18
TYPE OF PRACTICE						
Solo practice	1.0		1.0		1.0	
Group private practice	1.33	0.91–1.92	1.39	0.95–2.04	1.33	0.90–1.97
Community health center	1.04	0.13–8.39	1.66	0.20–14.04	2.51	0.27–23.18
Other	0.39	0.03.–5.94	0.89	0.11–7.24	0.30	0.02–4.56
TIME OF GRADUATION						
Before 1970 to 1979	1.0		1.0		1.0	
1980 to 1989	1.31	0.86–2.00	1.58	1.03–2.43*	1.56	0.99–2.44
1990 to 1999	1.14	0.65–2.01	1.12	0.63–198	1.18	0.65–2.14
2000 to 2009	1.73	1.00–3.00*	2.19	1.22–3.93*	2.66	1.45–4.87*
INTERVAL SINCE LAST C.E. COURSE						
Within the past 12 months	1.0		1.0		1.0	
Two to five years	1.20	0.75–1.92	0.86	0.54–1.38	1.11	0.68–1.82
Five or more years	0.93	0.49–1.77	0.65	0.34–1.27	0.65	0.33–1.29
Never taken a course	0.36	0.02–5.54	0.69	0.05–9.13	0.78	0.06–10.33

*p<.05

TABLE 4

Results of Multivariate Logistic Regression Analysis

Likelihood of general practice dentists getting a high score on oral cancer knowledge indices						
Background characteristics	Indices of knowledge of oral cancer					
	Risk factors		Diagnostic procedures		Risk factors and diagnostic procedures combined	
	Adj. odds ratio	95% Ci	Adj. odds ratio	95% CI	Adj. odds ratio	95% CI
GENDER						
Male	1.0		1.0		1.0	
Female	.85	0.47–1.53	1.30	0.73–2.29	1.16	0.62–2.16
TYPE OF PRACTICE						
Solo practice	1.0		1.0		1.0	
Group private practice	1.05	0.68–1.64	1.13	0.72–1.76	1.10	0.69–1.76
Community health center	1.17	0.09–16.08	0.57	0.04–7.82	0.70	0.05–9.79
Other	1.01	0.03.–38.17	3.16	0.20–49.06	0.91	0.02–35.44
TIME OF GRADUATION						
Before 1968 to 1979	1.0		1.0		1.0	
1980 to 1989	1.16	0.71–1.90	1.47	0.89–2.42	1.38	0.82–2.33
1990 to 1999	0.89	0.45–1.73	0.99	0.51–1.93	0.92	0.45–1.88
2000 to 2009	2.04	0.868–4.802	1.22	0.50–2.95	1.78	0.69–4.56
INTERVAL SINCE LAST C.E. COURSE						
Within the past 12 months	1.0		1.0		1.0	
During past two to five years	1.11	0.68–1.64	0.84	0.72–1.76	1.02	0.69–1.76
Five or more years	0.96	0.09–16.08	0.62	0.04–7.82	0.63	0.05–9.79
Never taken a course	0.26	0.68–1.80	0.63	0.52–1.36	0.60	0.61–1.70

Multivariate Analysis

TABLE 4 presents the results of the multivariate logistic regression analysis. Of the background characteristics examined, none were statistically significantly related to (1) knowledge of risk factors, (2) knowledge of diagnostic procedures, and (3) combined knowledge of risk factors and diagnostic procedures.

Overall, women were 1.16 times more likely than men to get a high score on the combined knowledge index. Dentists who work in "group private practice" were slightly more likely to get a high score on the three indices than dentists in solo practice. The time of graduation had a consistent effect on the likelihood of getting a high score on each knowledge index. Dentists who graduated between both 1980-1989 and 2000-2009 were more likely to receive a high score on three indices than dentists who graduated between 1968-1979.

Knowledge- and training-related opinions. As shown in **FIGURE 3**, 74 percent of dentists agreed that their knowledge of oral cancers was current. A majority of dentists disagreed that they were adequately trained to provide tobacco and alcohol cessation counseling to their patients and agreed they should be trained to provide this type of education (**FIGURE 3**). Eighty-three percent of dentists rated their oral cancer education as "very good" or "good." When asked if their dental school treated oral cancer examinations of patients similar to other procedures in terms of clinical requirements and credits received, 48 percent replied that oral cancer examinations were treated similar to other dental procedures.

Levels of knowledge and opinions about currency of knowledge. Chi-square analyses tested potential relationships among levels of knowledge of the three knowledge indices and dentists' opinions about the currency of their oral cancer knowledge. Results indicated that dentists who received a high score on the combined knowledge index were more likely to strongly agree or agree that their knowledge was current (**FIGURE 4**). None of the associations between dentists' opinions of the currency of their oral cancer knowledge and the knowledge of oral cancer risk factors index were statistically significant.

Discussion

To assess a patient's risk for oral cancers, dentists must know the factors that increase risk for oral cancers. The majority of respondents correctly identified most of the real and nonreal risks for oral cancers. Because tobacco and alcohol use account for more than 75 percent of all oral cancers, it is encouraging that more than 98 percent of respondents correctly indentified these two real risk factors.[8] Further, with the number of HPV-related cancers increas-

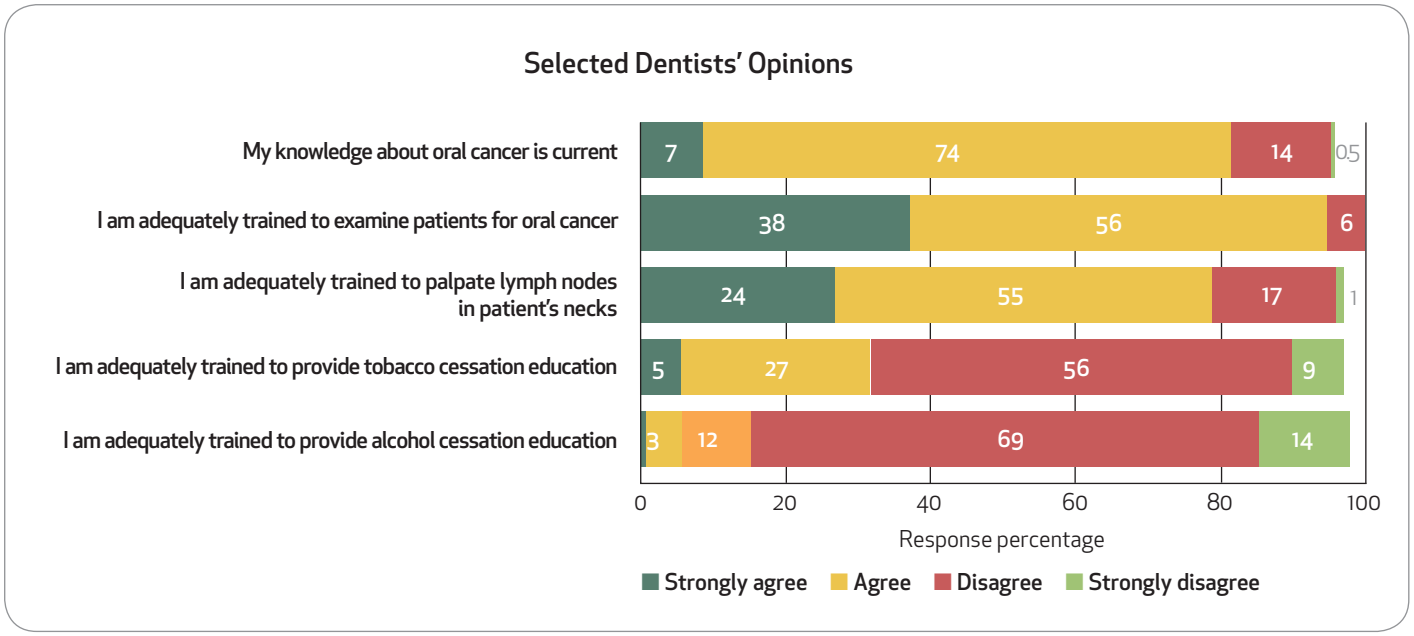

FIGURE 3. Selected opinions of general dentists.

ing in the United States, it is promising that 88 percent of respondents correctly identified HPV as a risk factor. However, it is discouraging that a large percentage of respondents incorrectly identified non-real risk factors, such as poor oral hygiene and poor-fitting dentures, as risks for oral cancers, when in fact there is no scientific evidence supporting these factors.[27]

Besides knowledge of risk factors for oral cancers, dentists must also have knowledge of procedures to diagnose oral cancers. Thus, it is encouraging that 85 percent of respondents correctly identified the procedure for examining the tongue for oral cancers.[27] However, it is problematic that only 42 percent of respondents knew the two lesions most commonly associated with oral cancers (erythroplakia and leukoplakia).[27] If dentists do not know what to look for and where to look in the oral cavity, it is likely that some cancers will not be detected at early stages.

Only 17 percent of respondents received a high score on the combined knowledge index, which suggests that dentists may not be as knowledgeable about signs, symptoms, and risk factors for oral cancers as they should be.[7,14] Further, only 7 percent of dentists strongly agreed that their knowledge of oral cancers was current. It is the authors' contention that how strongly dentists agreed with the opinion statements ("strongly agree" versus "agree") demonstrated their conviction that they are adequately trained. C.E. courses are one approach to increasing dentists' knowledge of oral cancers, and 94 percent of respondents said they were interested in attending such courses. The four most popular approaches to future C.E. courses were lectures (54 percent), clinical demonstrations (15 percent), study clubs (16 percent), and audiovisual slide or videotape series (15 percent). C.E. courses may be particularly beneficial to dentists who have never taken a C.E. course or have taken one more than five years ago.

Recency of graduation was the most consistent predictor of the likelihood of getting a high score on the three knowledge indices. This finding is consistent with expectations because the curricula at many dental schools now place a greater emphasis on oral cancer training than in the past.[28,29] With regard to the multivariate logistic regression analysis, none of the background characteristics that were examined were statistically significantly related to the three knowledge indices. Possible explanations for these findings are: 1) the authors undersampled dentists in "community health centers" and "other" types of practices; 2) the categories within the variable "interval since last C.E. course" may not be finite enough, especially the category of taking a C.E. course in the past two to five years; and, 3) it is possible that there are few differences in knowledge by background characteristics.

The authors' study suggests that students in dental school require additional training. It might be expected more recent dental school graduates to have greater knowledge of risk factors for oral cancers and procedures used to diagnose oral cancers than dentists in the reference population (graduated prior to 1980) because of recent efforts by some dental schools to treat oral cancers similar to other dental school subjects; however, this was not the case in multivariate models. A possible explanation is that earlier graduates may have attended and benefitted from the hands-on oral cancer C.E. courses held throughout Maryland in the late 1990s as a result of the findings from the previous study.[26]

The best way to address deficiencies in knowledge is to provide more comprehensive oral cancer training in dental school.

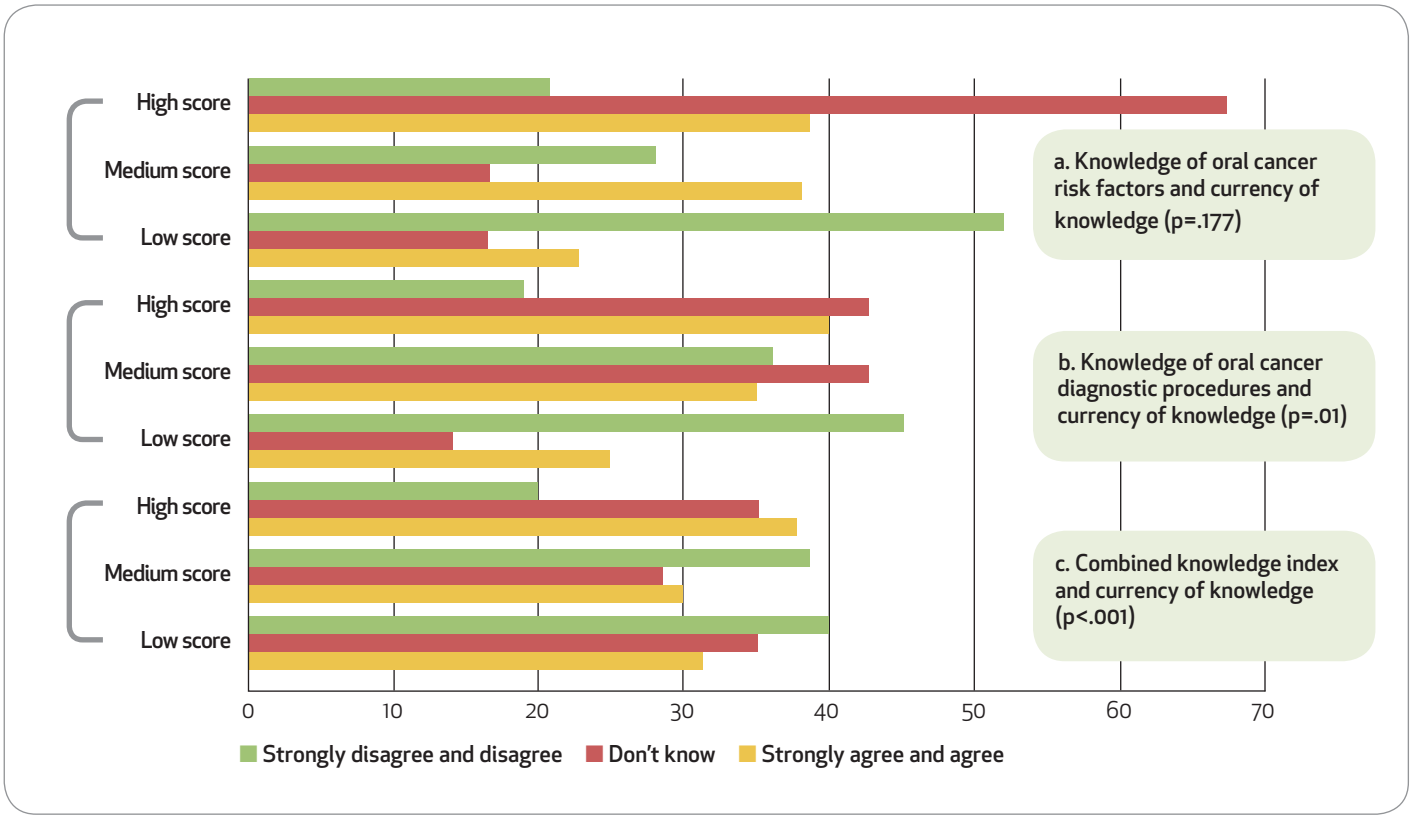

FIGURE 4. Levels of knowledge and opinions about currency of knowledge.

For example, some dental schools require students to perform a specified number of procedures such as amalgam or composite restorations, but many schools do not have specified requirements of students to evaluate oral cancer signs and symptoms, nor do they teach students oral cancer examination procedures that include palpation. Less than half of respondents (48 percent) agreed that oral cancer examinations were treated similar to other dental procedures. Thus, all dental schools should require students to perform a specified number of oral cancer examinations to graduate and ensuring exit competency. Placing greater emphasis on oral cancer prevention and early detection in school, and requiring students to demonstrate competency in providing oral cancer examinations, will predispose students to providing these examinations effectively and routinely when they leave school.

Comparison of current findings to previous study. A baseline study of dentists' knowledge and practices relating to oral cancers was conducted in Maryland 1995.[26] The authors compared key findings from the pilot study with their results. With regard to knowledge of procedures to diagnose oral cancers, there are two notable differences. First, there was an increase in respondent's knowledge of the two lesions most likely to be associated with oral cancers (42 percent versus 31 percent). Second, a greater number of respondents in the current survey knew that oral cancer lesions are most often diagnosed at advanced stages (50 percent versus 28 percent). With regard to knowledge of risk factors, a slightly greater percentage of respondents in the current study correctly identified four nonreal risk factors (hot beverages and foods, use of spicy foods, obesity, and poor oral hygiene) than in the pilot study. Periodic assessments, such as our study, provide data that allow for updating and reinvigorating interventions to increase knowledge of oral cancers.

Study limitations. This study has several limitations. First, response bias may be a factor in that respondents may not be representative of the source population. In particular, the study lacked a significant number of dentists from community health centers, "other" types of practices and minority populations. Oversampling might have increased the power to detect differences by type of practice and race/ethnicity. Further, respondents might have greater knowledge or think they have greater knowledge of oral cancer diagnostic and screening practices than nonrespondents, making them more inclined to respond to the survey. Thus, the authors' results may reflect a situation in which the knowledge of oral cancers is higher in the study sample than in the source population. The problems with the second mailing decreased the authors' sample size and potential representativeness of the respondents. It was unclear who was excluded as a result of this error.

Second, the authors' results relied on self-report data, which meant that respondents could over-report their screening practices. Third, the error in second survey mailing reduced the effective response rate from 53.6 percent to 40.1 percent, which decreased their power in detecting differences. However, a large sample size was achieved and lack of statistically significant associations in the multivariate analyses likely represent few differences in knowledge by background characteristics.

Conclusions

To reduce the morbidity and mortality associated with oral cancer, dentists must have accurate knowledge and skills to detect and diagnose oral cancers at early stages. The authors' study found gaps in dentists' knowledge of risk factors and diagnostic procedures related to oral cancers. Several steps can be taken to address deficiencies. First, existing oral cancer C.E. course materials should be evaluated to identify strengths and deficiencies, and a comprehensive program that emphasizes screening for risk factors, performing oral cancer examinations, and counseling to modify behaviors should be designed. Next, Maryland should consider reinstating hands-on oral cancer C.E. training courses that were discontinued due to lack of funding. Further, dental school curricula should be modified to place greater emphasis on oral cancer prevention and early detection. Finally, state boards of dental examiners should require applicants to perform oral cancer screening examinations for licensure and relicensure. A greater emphasis on oral cancer prevention and early detection knowledge and skills may ultimately lead to detection of oral cancers at earlier stages, which would reduce the morbidity and mortality associated with these cancers. Increasing oral cancer health literacy among dental professionals has the potential to increase oral cancer health literacy among the public. ■■■■

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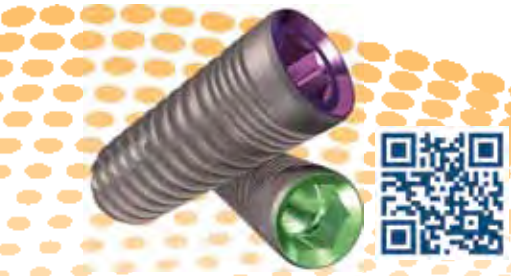

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Dental Health Literacy and California's Clarion Call

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ABSTRACT Demographic changes in California require a multicultural paradigm shift in oral health care. The shift encompasses attention to health literacy in all forms of communication: signage, oral and written communication, consent forms, postop instructions, and patient education materials. California dentists may find it necessary to adapt their practices to reflect community demographics and health literacy needs. This article provides a toolbox of recommendations to address these needs.

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California's racial and ethnic diversity growth will result in a majority culture shift for California dentists. Recent data on active California dentists' reveal a state gender distribution of 71 percent male and 29 percent female.[1] Current racial/ethnic demographics of dentists in California are as follows: 57 percent white; 33 percent Asian; 7 percent Latino; and 3 percent black.[1] Just 7 percent of the state's dentists are Latino; yet, Latinos represent 34 percent of the labor force in need of oral health care and are anticipated to become the new majority. California's health care force should aim to reflect the state's changing racial and ethnic demographics. A recent study provided evidence that low oral health literacy among adults seeking dental care affects their ability to understand and use oral health information, and numerous studies indicate that low health literacy can result in poorer health outcomes.[3-5] Dentists play a crucial role with regard to oral health literacy because studies have found that dentists are a key source of health information for their patients.[6] Thus, dental providers' knowledge must be accurate and current to provide the best evidence-based care and health information to their patients.[4,7]

The 2010 census data confirms California's population at 37,253,956 million. While no ethnic/racial group currently reaches majority > 50 percent, the state consists of 40 percent non-Hispanic white; 37 percent Latino; 13 percent Asian; 6 percent African-American; and 1 percent American Indian/Alaska native.[2] By 2020, California is expected to have the single, largest net population change of all states.[3] The U.S. Census Bureau projects that by 2025 there will be increases in the Latino and Asian populations, decreases in the non-Hispanic white and African-American popula-

tions, more older adults, greater inland county population growth, and a lack of corresponding educational growth. By 2050, our Latino population will exceed 50 percent and be California's new majority.[4] As the Latino culture emerges as majority culture, California oral health practice will likely readjust to needs not previously known. Selling a practice in the future might necessitate taking into account languages spoken by the community and the buyer in order for the practice to succeed in serving the local community.

Ethnicity and race concordance with one's health care provider is thought to facilitate the doctor-patient relationship. Many individuals do not choose their doctor particularly in health maintenance organizations (HMO), federally qualified health centers (FQHCs), or community clinics. Yet, frequently there is the perception that health care provider assignment will lead to a good doctor-patient relationship. In a nationally representative telephone survey on race/ethnicity and the perception of health care, 1 percent of whites, 12 percent of African-Americans, and 15 percent of Latinos felt either treated unfairly or treated with disrespect by their clinician based on their race or ethnicity.[5] In the same study, 46 percent of whites, 56 percent of African-Americans, and 51 percent of Latinos responded with "very or somewhat often" to the question: "How often do you think our health care system treats people unfairly based on what their race or ethnic background is?" Evidence suggests that patients who choose race-concordant primary care clinicians, especially those most concerned by discrimination, rate those experiences as more satisfactory and more participatory in decision-making than patients who didn't.[6-7] A caveat: race and ethnicity concordance alone will not guarantee a successful, trusting doctor-patient relationship.

Honoring patients' requests for race or ethnicity concordance raises an ethical issue. When is preference itself equivalent to prejudice or discrimination? The Oxford Dictionary defines preference as "a greater interest in or desire for somebody/something than somebody/something else."[8] It defines prejudice as "an unreasonable dislike of or preference for a person, group, or custom especially when it is based on their race, religion, sex etc." A request for race or ethnicity concordance may truly be the patient's attempt to "stack the deck" for a successful relationship with a health care provider. Or put another way, it may be a wish to communicate well, be understood and respected, and share beliefs or values with one's clinician. In a 2008 study of postvisit satisfaction, trust, and intention to adhere, perceived personal similarity and patient-centered communication was better at predicting provider satisfaction than race or ethnicity concordance.[9] Patient autonomy allow individuals at the onset to choose their health care providers. Good practice management supports a request to change providers when it is "not a good match" — at least once. Frequent or repeated requests to change health care providers might indicate a psychological issue or inability to form a trusting relationship with a health care provider. In this paper, it is advised that clinicians should respect/accept a patient's negative experience with a past health care provider and learn more about what was said or done that was offensive. If comfort and trust in the doctor-patient relationship is facilitated by common ground (gender, race, ethnicity, or age), it may fall under the umbrella of cultural sensitivity and not prejudice or discrimination. It is worth noting that clinicians who are skilled in good communication, active listening, shared decision-making, and are culturally respectful can often times transcend racial, ethnic, and gender issues.

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Historically, minority clinicians and women have been more likely to serve minority and vulnerable populations, an assumption embraced by dental pipeline efforts. In a Kaiser Permanente study involving 109,745 patients in a diabetes registry, minority patients (African-American, Hispanic, Asian) who had a choice in their physician, even controlling for availability, were more likely to have a same race/ethnicity provider.[10] Eleven percent of all patients were African-American but they represented 25 percent of patients seen by African-American physicians. Similarly, 12.5 percent of all patients were Hispanic, but 24 percent of patients seen by Hispanic physicians were Hispanic suggesting minority physicians disproportionately serve minority patients. African-Americans and Latinos were the groups for whom race, ethnicity, or culture, significantly correlated with desire for a race-concordant physician.

The dental profession would be expected to be similarly affected. Given a choice, patients may prefer to see a dentist with a similar background, race, or culture. All patients want a dentist who respects their health beliefs, communicates well, and allows them to feel understood. Though it is possible for a patient to feel respected, enjoy good communication, and feel

understood by a dentist with a dissimilar race or ethnic background, it may not be the patient's first choice. Of note, white patients are the group most likely to have race-concordant physicians (88 percent), less so with African-American (23 percent), and Latino (21 percent) patients.[11] With changing demographics, there may be more pressing need to allow opportunity for representative numbers of minority dentists to serve their communities. Increasing the numbers of ethnic and racial minority dentists in the state would allow greater opportunity for patients to choose a dentist they prefer and may help address health disparities.[11] Fully addressing health disparities would require more than just adding minority health care providers.

Dental education should take into account California's changing demographics not only to provide future dentists but also to address the need to treat diverse patients in our student predoctoral clinics.

A more recent study showed that 43 percent of patients had a preference for the gender and race of their dental student when asked directly and given a choice.[12] When asked directly about their desire for a race/ethnicity -concordant dental student, they still requested a student with similar background. This was most striking for Latino women who were significantly more likely to choose a same race/same gender dental student. This appears consistent with a national telephone survey in which a third (34 percent) of Latinos preferred a Latino physician.[7] Lessons learned from medicine suggest dental schools might need to appreciate race and ethnic concordance where requests or concerns are expressed.

In addition, racial and ethnic concordance may be more important in addressing oral health disparities. Nationally, oral health disparities are significant for African-Americans, Latinos, and Native American/Alaska natives. Children ages 6 and older who are black, Mexican-American, Native American/Alaskan native, and low-income experience 75 percent of caries with Mexican-American children ages 23 months to 12 years having the highest caries rates among all racial/ethnic groups.

Among adults, blacks and Latinos ages 35-44 experience twice the caries rate as whites.[13] But at all ages, the percentage of African-Americans who have untreated caries is higher than whites.[14] Regarding oral and pharyngeal cancers, African-American men have the highest rate. Among the Latino population, adults are twice as likely to have both caries and extractions as whites.[2,14] Native American /Alaska native children and adults have three times the caries compared to the U.S. population with adults having 2.5 times more periodontal disease than the national average.[14] These findings suggest that dentistry needs to further analyze the patient education needs of ethnic and racial populations where oral hygiene instructions alone, if met, would not improve oral health. Oral and general health beliefs, attitudes about prevention and screening, and effective approaches that take into account gender, race, and ethnicity may need to be considered in providing best approaches to improving oral health for demographic groups.

GOOD PRACTICE
management includes having languages spoken in the community represented in the dentists hired for the practice.

Changing patient demographics will likely influence private practice. Good practice management includes having languages spoken in the community represented in the dentists hired for the practice.[14] Health literacy and language literacy may affect treatment plan acceptance. Encouraging questions creates opportunity for discussion but unfortunately doesn't guarantee comprehension. When clinicians ask patients if they need anyone present during the treatment plan discussion this shows respect for decision-making differences. When clinicians allow patients additional time to make treatment decisions it demonstrates respect for differences in decision-making style and cognitive processing. A patient simply saying "yes" or nodding does not confirm comprehension nor demonstrate informed consent. Horowitz states that research is needed in several areas including, but not limited to, the effectiveness of dental student and dental hygiene student communication skills, oral health counseling effectiveness, the impact of oral health education materials written in plain language, and the influence of community health care workers in preventing early childhood caries.[15]

As minority cultures approach majority or become more economically powerful, these cultural groups may prefer clinicians who speak their first language. Signage, clinic forms, treatment consent forms and postop instructions and patient education materials may be needed in the second- and third-most commonly encountered regional languages. Whether English, Spanish, Cantonese, Mandarin, Vietnamese, Korean, or Russian, dentists must be able to detect misunderstanding and lack of knowledge based on a health literacy gap. Use of plain-language teaching and patient-mastery learning in the patient's primary language

TABLE 1

National Standards for Culturally and Linguistically Appropriate Services CLAS-Mandated

Recommendations **2008 U.S. Office of Minority Health, National CLAS Guidelines for Recipients of Federal Funds** *(Nos. 4-7 of 14 are mandated)*
STANDARD 4. Health care organizations must offer and provide language assistance services, including bilingual staff and interpreter services, at no cost to each patient/consumer with limited English proficiency at all points of contact, in a timely manner during all hours of operation.
STANDARD 5. Health care organizations must provide to patients/consumers in their preferred language both verbal offers and written notices informing them of their right to receive language assistance services.
STANDARD 6. Health care organizations must assure the competence of language assistance provided to limited English proficient patients/consumers by interpreters and bilingual staff. Family and friends should not be used to provide interpretation services (except on request by the patient/consumer).
STANDARD 7. Health care organizations must make available easily understood patient-related materials and post signage in the languages of the commonly encountered groups and/or groups represented in the service area.

TABLE 2

Healthy People 2020 Health Communication/ Health Information Technology HC/HIT

HC/HIT-1 Improve the health literacy of the population
HC/HIT-1.1 Increase the proportion of persons who report their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition
HC/HIT-1.2 Increase the proportion of persons who report their health care provider always asked them to describe how they will follow the instructions
HC/HIT-1.3 Increase the proportion of persons who report their health care providers' office always offered help in filling out a form

are key ingredients. As reception areas and the dental operatory change their look and reflect the art, music, and the community served, so may we see clinicians change in languages spoken and health literacy interventions provided to patients. California dentists may need to acquire new knowledge, attitudes, and skills in health literacy as the state morphs toward greater multiculturalism.

In 2008, the U.S. Office of Minority Health provided national standards on culturally and linguistically appropriate services (CLAS) which may not be well-known to clinicians. These include 14 guidelines currently apply to institutions who receive federal monies: federally qualified health centers (FQHCs) and university health sciences centers. Four (Nos. 4-7 in TABLE 1) are mandated for these institutions and pertain to language, written and oral, interpretation needs, and health literacy.[16] With increasing state diversity, it is not known how soon these may apply to private practices and community clinics. It may be more important than ever for practice owners, staff dentists, and auxiliary staff to become familiar with these standards available online at www.minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=15. Standard 7 of the CLAS Guidelines refers to health literacy directly linked to signage, consent forms, and patient education materials in the languages most represented in the community served. Informed consent may be best obtained in a patient's first language if limited English proficiency exists. Healthy People 2020 lists health communication/ health information and technology goals as important to all health care disciplines. In dentistry, this would mean that dental practices should consider the importance of plain language instructions, in the languages most represented in the community, along with a teach-back approach to assessment of comprehension of the treatment plan options along with staff willingness to assist with filling out forms[17] (TABLE 2).

Health literacy in this context is often understood to involve the ability to read and understand health care information. However, both verbal and written abilities are important. Health literacy affects all communication aspects of dentistry: the medical and dental health history-taking, evaluation of capacity for informed consent, presentation of the treatment plan with its risks, benefits, and alternatives (RBA), and recognition of the stages of change readiness/adherence to treatment with respect to patient education. The Institute of Medicine's "Prescription to End Confusion" describes a broader range of health literacy skills: including "cultural and conceptual knowledge, listening, speaking, arithmetical, writing, and reading skills."[18] Unfortunately, nearly 90 million U.S. adults overestimate their reading ability, have basic, or below basic literacy levels, and struggle to understand health care information.[19] Despite improvements in adult literacy in the United States, 24 percent of African-Americans, 44 percent of Latinos, and 14 percent of Asian/Pacific Islanders have a below-basic ability to read.[20] So many elements of verbal and nonverbal

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TABLE 3

Steps California Dentists Can Take to Incorporate Health Literacy in Patient Care By 2015

Personnel	Action	Resources
Office managers/ clinic directors	Provide written notice of patients' right to a trained interpreter Make clinicians aware of profession's position paper on health literacy Provide medical and dental health history forms in most-common languages spoken in communities served by contacting a professional translation service or using online versions of these forms* Provide signage and patient education handouts on fluoride varnish, dental cleaning — prophy and scaling and root planing, caries, periodontitis, root canal therapy, extractions, dentures, and implants, in most-common patient languages spoken Read and implement the Healthy People 2020 Health Information and Health Technology goals	National Standards on Ethics for Interpreters in Health Care guide should be viewed by those who interpret at: http://data.memberclicks.com/site/ncihc/NCIHC%20National%20Standards%20of%20Practice.pdf Language Diversity and English Proficiency by District in California http://www.medicalleadership.org/downloads/California-Speaks.pdf How to Choose & Use a Language Agency http://www.medicalleadership.org/downloads/How-to-Choose-a-Language-Agency.pdf Free DVD on Overcoming Language Barriers at http://www.migrationinformation.org/integration/language_portal/film_childhood.cfm ADA Strategic Plan for Health Literacy for Dentistry at: http://www.ada.org/sections/professionalResources/pdfs/topics_access_health_literacy_dentistry.pdf University of the Pacific offers medical and dental history forms in multiple languages at: http://dental.pacific.edu/Professional_Services_and_Resources/Dental_Practice_Documents.html * Language Interpretation Resources: Dental Pipeline at: http://www.dentalpipeline.org/californiainitiative/ci_interpservices.html California Health Care Interpreting Association at: http://www.chiaonline.org/?page=Mission Patient education handouts in multiple languages -17 topics at: http://www.dentalcare.com/en-US/dental-education/patient-education/patient-education-landing.aspx
Front desk staff	Offer patients ability to see provider who speaks their first language Be willing to provide assistance to patients in filling out forms Learn about the racial/ethnic/cultural groups served by the practice Be aware of whether there is cultural permission to report pain during phone triage Create a welcoming environment with music, magazines, and art that reflects patients' cultures	Obtain translation of "Do you need an interpreter" in languages spoken by the population served to make patients aware of their right to an interpreter Obtain local demographics for an understanding of the community served Ask for a presentation on cultural differences with respect to reserved and expressive cultures, permission to report pain, etc. Look at the office environment with a multicultural lens and give feedback to the practice owner as well as report feedback from patients
Back office staff	Provide eye contact and greetings that are appropriate for patients' race, culture, or ethnicity Check recall and understanding of treatment planned for day of appointment	Monthly review of any language or cultural misunderstandings between patients and staff for group learning Ask for cultural presentations that include personal and cultural health beliefs toward oral health care

CONTINUES ON NEXT PAGE

Steps California Dentists Can Take to Incorporate Health Literacy in Patient Care By 2015 (continued)

Hygienists	Use plain simple language for home care instructions and teaching Use "teach-back" method for recall and comprehension	Use visual aids or models for teaching Post "teach-back" template guide Learn racial/ethnic/cultural attitudes toward screening & prevention, fluoride, prophy, SRP, along with any concerns/ fears/barriers to periodontal care
Dentists	Assess personal, cultural, religious health beliefs that impact oral health and patient preferences for treatment Use plain simple language for relevant findings, treatment plan, RBAs, and assessment of adherence to home care Use "teach-back" method for health literacy assessment and informed consent to TX	Establish a practice standard for asking about: personal, cultural, religious health beliefs important to dentistry during history taking; if patient has a preference for a clinician who speaks their first language if available Establish a practice standard for informed consent protocol: check recall and understanding of significant findings, treatment plan, risks, benefits, and alternatives including no treatment option by doing a "teach-back" until mastery of understanding achieved
Practice owners	Provide access to free online health literacy course Review CLAS standards twice per year with clinical and administrative staff and identify progress Provide annual training in effective interpretation — 30-minute DVD Avoid children as interpreters and only use family members (adults) at patient request	Unified Health Communications 101 Health literacy course with /without CE credit free online at: http://www.hrsa.gov/publichealth/healthliteracy/ Culturally and Linguistically Appropriate Services at:http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=15 Effective Interpretation DVD training 30 min at: http://www.xculture.org/catalog/product_info.php?products_id=29&osCsid=773f40a5ef8620586803f8760ee2a25c
Dental school curriculum, continuing education, and diversity leaders	Reserve curriculum and continuing education time for evidence-based best practices in patient communication, health literacy, informed consent, and use of the "teach-back" method Assess health literacy/informed consent verbal skills with a competency exam	Unified Health Communications 101 Health literacy course with/without C.E. credit free online at: http://www.hrsa.gov/publichealth/healthliteracy/ For a sample Health Literacy Competency Exam template for predoctoral dental clinic use — see **Appendix A**
Community leaders	Contact the local practices or dental schools and advocate for the oral health needs of the community Contact the local practices or dental schools and advocate for the oral health needs of the community Participate in oral health outreach event with dentists and dental students the community Identify community ambassadors for oral health	Adopt a local dentist or dental school and learn how to advocate for your community Ask the community what they want in terms of their oral health needs Promote interest in oral health fairs in your community and volunteer available settings: community centers, reception halls, religious centers, outdoor health fairs

communication are informed by heritage, culture, language, environment, and prior experience. Providing culturally and linguistically appropriate oral health care includes a full understanding of health literacy requirements and health literacy requires an appreciation of the role of culture in providing effective oral health patient education.

Most are familiar with Healthy People 2010's definition of health literacy: "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."[21] In a sense, health literacy is the foundation of all oral health care no matter whether preventive, restorative, or specialty care. If these guidelines apply to private practices and community clinics in the future, significant changes in the management of dental practices would need to occur. A review of mandated standards reveals that language services would need to be provided at no cost to patients and written materials such as patient education handouts would need to be available in languages commonly encountered in the community. Since LEP patients do not necessary self-advocate, practices need to make patients aware of interpreter services and provide language translation of key forms and material in the preferred language (**Table 1**).

APPENDIX A

D3/ ID3 Informed Consent C.E.

Student Name_____ D3 #_____ ID3 #_____ Date_____

Faculty _____Grading: Must pass each category ❑ Grade: Pass ❑ No Pass

_____ **CONSENT FOR HEALTH CARE:** assesses if patient has capacity to provide consent for health care decisions. If patient is under 18 years, identifies parent or guardian with custody. If conservator, legally authorized surrogate, or emancipated minor, student asks for a copy of legal document to be scanned into Axium. If minor with emergency and no parent/ guardian available, follows UCSF protocol for obtaining consent. (Failure if doesn't clarify status and/or request documents.)

_____ **COMPREHENSION IN ENGLISH:** Assesses patient's ability to communicate in English. If interpreter needed, arranges for interpreter. Gives instructions regarding effective interpretation. Does not use family member unless specifically requested by patient. Avoids minor children as interpreters. (Failure if doesn't assess comprehension or doesn't give interpreter instructions on how to interpret.)

_____ **PRESENTS CLINICALLY SIGNIFICANT FINDINGS:** uses plain /simple language appropriate to the patient's health literacy level and checks for understanding. (Failure if states treatment needs without significant findings, uses jargon without explanation, or doesn't allow opportunity for questions.)

_____ **DESCRIBES TREATMENT PLAN OPTIONS:** for each treatment option— describes how it would address the problem along with explanation of benefits, risks, and alternatives, including option for "no treatment." (Failure if doesn't describe treatment plan options along with risks, benefits, alternatives, or if is biased toward specific treatment option.)

_____ **PERFORMS A "TEACH-BACK":** Asks patient to describe in own words what he she understands about the reason for treatment and the treatment choices including no treatment option, along with risks, benefits, and alternatives. Clarifies misconceptions or fill in information gap to aid comprehension. (Failure if doesn't ask /listen to the patient to assess comprehension; failure if doesn't clarify adequately or doesn't identify inability to understand treatment plan options.)

_____ **DISCUSSES THE BIOMATERIALS INVOLVED IN TREATMENT OPTIONS:** Asks patient if questions about the materials that will be used. Uses language appropriate to the patient's health literacy level to explain choices and answer questions or concerns. (Failure if uses jargon without explanation, biases patient toward a particular option, or is insensitive to core health beliefs.)

_____ **PRESENTS PATIENT WITH THE TREATMENT PLAN:** Gives patient a copy of the treatment plan with fees listed. (Failure if doesn't offer patient written treatment plan, no patient signature obtained, not witnessed.)

Areas of Strength

Areas of Needed Improvement

9/20/11

Improving overall health literacy of U.S. adults is a shared responsibility, but dentists have sole responsibility for evaluating and addressing health literacy in their office. Adults 65 years and older, racial/ethnic minorities, and those with less than a high school education are disproportionately represented in groups with basic and below-basic levels of health literacy measured by the National Assessment of Adult Literacy (NAAL).[20] With lower literacy comes reduced understanding of disease management and prevention strategies for caries and periodontal disease. There are tests that determine reading level in health care settings. The REALM-D (Rapid Estimate of Adult Literacy in Medicine and Dentistry) is an 84-item test of medical terms including 18 dental words such as teeth, root canal, toothache, and bacteria.[22] These tests of word recognition may screen for those who, by education or English as a second language, are at risk for inadequate health literacy. However, given time constraints, screening tests may not be practical or sufficient to address the needs of patients in a busy dental practice. Instead, communication (verbal, written, or sign language) in plain and simple language and along with the "teach-back method" of assessing comprehension could be implemented.

The "teach-back method," promoted by the Health Resources and Services Administration (HRSA), shows health care providers how to teach a new concept, provide new information, or give instructions by assessing patient recall and comprehension through a series of questions and request for demonstration.[23] The clinician tells the patient, "I want to make sure I've been clear, tell me, in your own words, what you understand you need and what the treatment choices are that we just talked about." The patient recalls and describes what was heard and understood.

The dentist clarifies any misconceptions or gaps, and asks the patient to explain again until there is demonstration of mastery. A visual teach-back tool for training is located at pilot.train.hrsa.gov/uhc/pdf/module_02_job_aid_teach_back_method.pdf.[24] All dentists could implement this treatment plan comprehension tool and comply with current standards for obtaining informed consent.

California is a bellwether state. With an emerging cultural paradigm shift, California dentists are poised not only to meet patient health literacy needs but to influence dentistry nationally. The American Dental Association through its 2010-2015 Strategic Plan for Health Literacy has invited the dental profession to review stated goals that pertain to training, advocacy, research, collaboration, and practice.[25] The ADA's health literacy goals are specific to the clinical practice of dentistry: bring evidence-based best practices and health literacy-specific interventions to dentists to improve communication and patient understanding. California dentists stand at the threshold ready to create a more welcoming multicultural practice environment and have available the tools to implement health literacy assessment with best practice standards (**TABLE 3**). A successful practice in the future will recognize the importance of appealing to an increasingly multicultural California. ■■■■

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$775,000 – Dental Leasehold Improvements/Equipment and Real Estate in Santa Ana, Orange County, Southern California with seven (7) total operatories, five (5) equipped, two (2) plumbed, not equipped. Also includes sterilization area, adjustment lab, dark room, staff lounge, business office, and private office. Open floor plan that would be a great set-up for GP or Specialty practice with soothing neutral colors. A great opportunity to own real estate in Orange County. Near Western Medical Center.

$375,000 General Dentistry Practice in Irvine, Orange County, Southern California with seven (7) operatories, five (5) fully equipped, two (2) plumbed, wired and medical-grade cabinetry and sinks. Beautiful, modern office in soothing neutral colors.

NEW LISTING – PRICE TBD – General Dentistry Practice in Rancho Cucamonga, San Bernardino County, Southern California, with three (3) operatories, sterilization/lab combo, reception room and much more in a busy retail center. Practice has been in business over 20 years. Call our office for more information.

NEW LISTING - $120,000 – Dental Leasehold Improvements and Equipment in Lake Forest, Orange County, Southern California with four (4) operatories, sterilization room, reception room, staff lounge, and private office in a retail center with plenty of foot traffic.

$950,000 Pedo Practice in the Inland Empire, San Bernardino County, Southern California with six (6) dental chairs, five (5) open bay, one (1) surgical suite, sterilization room, private office and great cash flow in a mixed-use building. In Escrow.

$150,000 Orthodontic Practice in Pico Rivera, Los Angeles County, Southern California, with four (4) chairs, open bay, sterilization-lab combo, adjustment lab, reception area, business office/consultation room, and private office in a professional building.

$300,000 General Dentistry Practice in Brea, Orange County, Southern California, with four (4) operatories, includes equipment, sterilization room, private office in a shopping center near mall and freeway.

$500,000 General Dentistry Practice in South Orange County, Southern California with four (4) operatories, fully equipped, sterilization-lab combo, adjustment lab, staff lounge, private office, over 31 years of goodwill, doctor retiring.

$475,000 Pedo Practice located in Costa Mesa, Orange County, Southern California with five (5) operatories, private office, staff lounge, sterilization/lab combo, adjustment lab, x-ray room, dark room, reception area, private office. 1500 square foot suite. In Escrow

$400,000 General Dentistry Practice in Los Alamitos, Orange County, Southern California with seven (7) operatories, sterilization room, wet lab, business office, private office, staff lounge. Located on a busy street with plenty of frontage.

$250,000 Leasehold Improvements in Pasadena, Los Angeles County, Southern California with six (6) Adec Chairs/Lights in a great part of town. Contact our office for more information.

$275,000 Orthodontic Practice in Long Beach, Los Angeles County, Southern California with four (4) chairs, open bay, plus one (1) chair in consultation room, includes equipment, digital Pan/Ceph machine, paperless office, private office in a Medical/Dental Building. Over 50 years of Goodwill.

$430,000 Prosthodontic Practice in Walnut Creek, Contra Costa County, Northern California with three (3) operatories, fully equipped, two-desk laboratory, administrative office, and private office near a retirement community. Doctor retiring, 28 years in the same location.

PRICE REDUCED - $450,000 -General Dentistry Practice in La Verne, Los Angeles County, Southern California with four (4) operatories, private office, staff lounge, sterilization/lab combo, adjustment lab, x-ray room, dark room, reception area in a retail center. Over 33 years of Goodwill.

$500,000 Pedo practice located in Santa Ana, Orange County, Southern California with eight (8) operatories, a three (3) chair ortho bay, sterilization/lab combo, adjustment lab, x-ray room, dark room, reception area, staff lounge, business office, consultation room, storage room, private office, in a professional building. 4000 square foot suite. In Escrow.

$225,000 General Dentistry Practice in San Juan Capistrano, South Orange County, Southern California with three (3) operatories, sterilization room, adjustment lab, 2 x-ray rooms, staff lounge, private office in a business complex. 31 years of goodwill, doctor is retiring. In Escrow.

$545,000 Amalgam-free General Dentistry Practice in Westwood, Los Angeles County, Southern California with five (5) operatories, includes equipment, wet lab, consultation/seminar room, sterilization room. Doctor retiring. Great location across from UCLA campus in a professional building.

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CDA JOURNAL, VOL 40, Nº4

Building Pathways of Trust

SUSAN BAUER, MA, MPH

ABSTRACT In this letter to the editor, the author provides the reader with a practical example of oral health literacy intervention. She describes the promatoras' success in terms of increasing access to care, improving health outcomes, and promoting behavior change in a migrant community.

AUTHOR

Susan Bauer, MA, MPH, is the executive director of Community Health Partnership of Illinois in Chicago. She has spent more than 15 years integrating community health workers (promatoras) into the oral health care delivery system at a community health center.

My interest in community health workers was sparked long before we recruited our first cadre of promotores de salud (health promoters) in 1996. Fresh out of graduate school in 1979, I had decided to forgo an academic career to work as a health educator at a migrant health clinic in Rochelle, Ill. The clinic offered a full range of prevention-oriented primary health care services, including oral health care for children enrolled in the local Migrant Head Start program. Each year during the planting, harvest, and packing season, we served more than 2,000 patients, most of whom were Mexican-American workers and families from the Rio Grande Valley of south Texas. Then, quite unexpectedly in the fall of 1982, the canneries where the corn, pumpkin and asparagus were processed closed down. Thousands of migrants left the area in search of work elsewhere in the upper Midwest. Soon afterward, we had to shutter the clinic as well.

Many of the migrant families we had served at the clinic decided to put down roots in the Rochelle area to provide a more stable living and educational environment for their children. Unfortunately, after the clinic closed, the farm worker families that remained struggled to access the most basic health care services. Most of the parents spoke little or no English, and lacked the working knowledge necessary to navigate the disparate array of health and social services that were available to uninsured and low-income families in the county.

In retrospect, it was clear that those of us who had worked at the clinic — health care providers and support staff alike — had unwittingly done a great disservice to the farm workers for whom we felt such a deep and abiding connection. In our eagerness to meet our patients' immediate health care needs, we had failed to recognize and nurture our patients' interest in health and well-being, their own healing traditions, their resilience and resourcefulness, and their strong social and family networks: in other words, the foundational elements of a successful community health worker program. In so doing, we had squandered the opportunity to help migrant families who had settled in Rochelle transform these community assets into capacity to promote healthy be-

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haviors, navigate health care systems, and access essential health care and related social services, which surely would have eased their transition into the community.

Shortly after the Rochelle clinic closed, I accepted a position with our organization's statewide administrative team to develop programs and resources to better meet the health care needs of the increasingly dispersed population of migrant farm workers throughout rural Illinois.

My sense of having "abandoned" the families with whom I had worked so closely, and who had come to rely on me to help them negotiate the complex health care system, was soon replaced by a fierce determination to strengthen the relationship between our clinic providers and the communities we served in a way that would build synergy from the special gifts of each.

It was during that time I learned about an organization called migrant health promotion (MHP). Using a community health worker (promotores/as de salud) model, MHP provides training and technical assistance to federally qualified health centers (FQHCs) and other community-based organizations to support culturally appropriate health education, outreach and sustainable community development for farm worker, migrant, border, and other underserved or isolated communities throughout the United States. The MHP's capacity building services are grounded in the belief that, through increased knowledge and skill building, individuals and families are empowered to live healthy lives.

For nearly a decade before we launched our first promotores de salud program, our organization wrestled with how to incorporate this model of community-centered, community-driven health promotion and advocacy into our health care delivery system. During those years, our colleagues at MHP provided ongoing training for our staff, which focused primarily on securing funding to support a community health worker program and designing a program that would best meet the unique needs of the predominantly adult male migrant population we served at that time. From the outset, our "front line" health care staff — many of whom were former migrant workers themselves — saw the community health worker model as the most effective and organic way to deepen and extend the reach of our primary health care services into the community, while at the same time nurturing sustainable leadership within the farm worker population to increase health literacy, promote behaviors that support good physical and emotional health, and build capacity within the community to understand and effectively negotiate the health care system. However, many of our health care providers were, in a word, skeptical about entrusting individuals from our patient population — most of whom had limited formal education — with conducting health promotion activities, providing self-management support to patients, and administering questionnaires as part of investigational studies.

In the end, perhaps the most valuable outcome of the assistance that migrant health promotion staff provided during this formative period of our organization's development was that our medical and dental providers came to appreciate how migrant farm workers who possessed natural leadership qualities, strong verbal communication skills, a keen interest in health, a desire to learn and to help others, and the respect of their peers, could effectively assist our patients to adopt the behaviors their health care providers had recommended, which, in turn, would lead to improvements in their patients' health status, and, ultimately, in the health and well-being of the community as a whole.

In a documentary video about our migrant health program produced in the late 1990s, one of our nurse case managers declared what all of our staff — health care providers included — would still say today: "The promotores are key to everything we do!" This seemingly simple statement reflects a powerful shift in thinking about how best to engage individuals and communities to make changes in health behaviors and attitudes that result in improved health status and overall quality of life. That is to say, the treatment and guidance a health care provider offers a patient is vitally important in the "calculus of wellness," but it need not be the only factor in that formula. Another key factor may be a trusted peer who has been trained to help a young mother explore ways to calm her baby without giving her a bottle of formula at bedtime; to support an older diabetic who lives alone to check his glucose every day and write down the results to share with his doctor; to reinforce with everyone in their family, work and social sphere why it is important to keep health care appointments, and to arrive on time. These are just some of the ways in which community health workers build pathways of trust, understanding, and supportive engagement that have proved to be transformational for patients, providers of health care, and entire communities.

THE TREATMENT and guidance a health care provider offers a patient is vitally important in the "calculus of wellness," but it need not be the only factor in that formula.

Fifteen years after we piloted our first community health worker project, our organization, Community Health Partnership of Illinois, has successfully integrated promotores de salud into our health care delivery system, as have countless community-based organizations throughout this nation. We have taken many hard-earned lessons, as well as inspiration, from our public health colleagues around the world, for whom community health workers have long been a widely accepted and integral part of a community-centered system of health care. As documented in the "Community Voices" report cited at the outset of this commentary, as well as the 2005 findings from the Massachusetts Community Health Worker Survey, there is a growing body of literature that substantiates both the efficacy and cost-effectiveness of the community health worker model in increasing access to care, improving health outcomes, and promoting and sustaining healthy communities. I for one see great potential to reduce oral health disparities by incorporating community health workers within the American Dental Association's Community Dental Health Coordinator service delivery model to maximize limited resources and create the kind of community engagement that will ultimately result in improved oral health status in vulnerable and underserved populations throughout our nation.

All of which is to say, with an open mind and a willing heart, together we can conquer preventable oral disease and disability, one promotora, one dentist, one dental hygienist, one community dental health coordinator, at a time. ■■■■

RECOMMENDED LINKS:
www.migranthealth.org
mass.gov/eohhs/docs/dph/com-health/com-health-workers/legislature-report.pdf

TO REQUEST A PRINTED COPY OF THIS ARTICLE, PLEASE CONTACT
Susan Bauer, MA, MPH, Community Health Partnership of Illinois, 205 West Randolph St., Suite 2222, Chicago, Ill., 60606.

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LOMITA - Established in 2007 in a single retail building w/ heavy traffic flow. Seller works 3 dys/wk. Grossed ~$222K in 2011. ID#4087.
LOS ANGELES - General Practice w/ 18 yrs gdwll in free standing bldg wih 5 spacious ops. Monthly revenues of $30K/mo. ID# 4113.
MONTEBELLO - Located in free standing bldg w/ over 25 yrs of gdwll. Great street visibility, signage and foot traffic. ID #4051 **SOLD**
TORRANCE - Leasehold & Equip Only! Modern designed office established ~10.5 yrs ago w/ 3 eq ops in 1,215 sq.ft. ste. ID #4125
WOODLAND HILLS - Well equipped Pedo office with 3 chairs in open bay. 31 yrs of goodwill. NET OF $280K on 4 days/wk. ID#3661.

ORANGE COUNTY

FULLERTON - Well established off in 1 story bldg w/ 10 ops, 3 chairs in open bay in 5,215 sq. ft. Proj. approx $594K for 2011.#41.03.
IRVINE - Great opportunity for GP or Specialist!! Leasehold & Equip Only! 5 eq. ops. located in busy large shopping center. ID #3401.
LAKE FOREST - Turn key practice w/ 3 spacious eq ops, 1 plmbd not eq in a 1,200 sq ft ste. Busy shopping center. ID #4123.
ORANGE - Fee for service practice open 4 days/wk located in a single story med center w/ 4 eq. ops., on a 1,040 sq. ft. suite.ID #3531.
ORANGE - GP located in downtown near Chapman University. Beautiful decor. Great views. Heavy traffic flow. ID # 4101. **SOLD**
SANTA ANA - Absentee owner. Long established practice located a single standing bldg w/ ample parking. 4 eq ops. NET $82K. ID#4071
WESTMINSTER - Little Saigon area. Well established off. in a retail shopping center w/ 4 eq. ops. Seller works 4.5 days/wk. ID#4109.

RIVERSIDE / SAN BERNARDINO COUNTIES

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LOMA LINDA - Office is 1,100 sq. ft. w/ 4 eq. ops. Has Easy Dentald Pano & Ceph. 12 yrs gdwll. Grossed ~$900K in 2011. ID#4131.
RANCHO MIRAGE - GP consist of 3 eq. ops., 1 chair in open bay. Great traffic flow and visibility. Grossed ~$497K in 2011.ID# 4091
RANCHO MIRAGE (Perio) - Long established off in 1 story med/dent bldg w/ 4 eq. ops. Grossed ~$361K in 2011. ID#4089

SAN DIEGO COUNTY

DEL MAR - Beautiful Décor office located in a one story medical dental building w/ ocean view. 3 fully eq. ops. Lots of traffic. ID #4083.
OCEANSIDE - This desirable GP consists of 4 eq. ops in a 1,200 sq ft suite on a 4 story prof bldg. Grossed ~$555K in 2011. ID #4121.
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The *Journal* has changed its classified advertising policy for CDA members to place free classified ads online and publish in the *Journal*. Only CDA members can place classified ads. Non-CDA members can place display ads.

All classified ads must be submitted through cda.org/classifieds. Fill out the blank fields provided, including whether the ad is to appear online only or online and in the *Journal*. Click "post" to submit your ad in its final form. The ad will be posted immediately on cda.org and will remain for 60 days.

Classified ads for publication in the *Journal* must be submitted by the fifth of every month, prior to the month of publication. Example: Jan. 5 at 5 p.m. is the deadline for the February issue of the *Journal*. If the fifth falls on a weekend or holiday, then the deadline will be 5 p.m. the following workday. After the deadline closes, classified ads for the *Journal* will not be accepted, altered or canceled. Deadlines are firm.

Classified advertisements available are: Equipment for Sale, Offices for Sale, Offices for Rent or Lease, Opportunities Available, Opportunities Wanted, and Practices for Sale.

For information on display advertising, please contact Corey Gerhard at 916-554-5304 or corey.gerhard@cda.org.

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OFFICE FOR RENT OR LEASE — We are looking to lease a Dental Office in Fremont. We don't mind leasing it on a monthly basis or on a weekend basis. Weekends, we can even lease either days on Friday, Saturday and Sunday. So if you are interested, please email us and we can discuss further. Email jobs1556@yahoo.com or call 408-361-8133.

OFFICE FOR RENT OR LEASE — We are looking to lease a Dental Office in Sunnyvale with a min of 4 operatories. We don't mind leasing it on a monthly basis or on a weekend basis. Weekends, we can even lease either days on Friday, Saturday and Sunday. So if you are interested, please email us and we can discuss further. Email jobs1556@yahoo.com or call 408-361-8133.

OFFICE FOR RENT OR LEASE — High-tech and beautiful dental facility with 3 operatories, small lab, private office and reception area. The dental office is equipped with Dentrix software management and Dexis digital x-rays in all operatories, business area and private office. The office is located in a heavy foot traffic area adjacent to a medical office and walking distance from a medical/professional building and hospital and ½ mile from the Americana entertainment center. This is an ideal opportunity for a specialist

CONTINUES ON 366

CLASSIFIEDS, CONTINUED FROM 365

for a satellite office or a GP who wants to work on her/his own patients without incurring the expense of buying or owning an office. Flexible lease terms – short-term or long-term. Rent on a per day basis; pick your day of the week. Email navkaz@sbcglobal.net or call 818-547-4398.

OFFICES FOR SALE

DENTAL OFFICE FOR SALE — Upscale well designed GP office in the heart of Irvine for sale, Leasehold and equipment only. You can start practicing dentistry right away! Email drvickiege@yahoo.com or call 949-400-7863.

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CONTINUES ON 370

Timothy G. Giroux DDS/Broker

Will the New Delta Dental Policy affect the Value of my Practice?

Previously, Delta Dental allowed Delta Premier providers to "up-bill" any Delta PPO or DPO patients to their premium fee schedule and have the patient elect to pay the difference. This is no longer the case. Delta Dental has implemented a policy that all new Delta Premier providers must be providers for their PPO or DPO plan also and accept PPO fee schedule as full payment. In this tough economy, employers have chosen the less expensive plans so Delta does not have enough providers for their lesser plan. This is their way of forcing more providers for the lesser plans.

I have seen buyers and their representatives demand a 20% decrease of the purchase price due to this new policy for Premier only practices. I totally disagree with this notion. Their logic is as follows: if the Premier allowance for a crown is $1000, the expectation is that Delta and the patient would each pay $500. Let's say an employer of a long-term patient switched to a lesser plan that has a Delta PPO crown allowance of only $700, Delta would only pay $350 and the patient would be responsible for the remaining $650 if they choose to stay in the practice. Most of us know that many patients will find a new provider that accepts the lesser fee. Of course, many of us are proud to say that many of these patients eventually return to us as they would rather pay a little extra because they value our service.

In any event, the argument is that the new doctor will no longer be able to "up-bill" these particular patients, which may affect the revenues. In this scenario, that would be a 30% reduction in fees for that procedure. Delta states that approximately 70% of their insured clients are on the lesser plans. While this may be true, it is totally erroneous to assume that this number extrapolates to these "Premier" practices' ratios of how many patients are affected. In my experience, this affects only about 3% to 8% of the ***TOTAL*** patients in the "Premier" practices, not 70%. Unfortunately, there is no computer report that will show the "actual" amount of "up-billing" in a practice, but one can imagine the friction when you have to explain to a patient that their insurance is inferior and that they owe almost twice what the lesser insurance paid. While doctors may not always be aware of this friction, your staff certainly is!!!

What can we do? If you currently have a "Delta Premier" only practice, approach your front office staff and try to a) run a report that shows how many patients you have in each insurance program, b) determine which of the Delta plans listed are PPO or DPO and c) ask your billing coordinator if patients are historically paying the difference "out of pocket". Your billing coordinator can tell you if she is having this uncomfortable conversation often!!

As a buyer, this is just one of many issues that may affect your collections in the future. Differences in skill sets and treatment plan acceptance dwarf this and most of the issues that should be part of a thorough due diligence process. Of course you should try to get a handle on the Delta situation by determining just how many patients will be affected. Keep in mind this affects only the patients who are ***already*** paying the difference to stay in the practice, as you will be prohibited from collecting the difference in the future. Typically, this may be a small percentage of the patient base. I could also argue on a positive note that a new buyer might expect a greater influx of new patients because of their participation in additional PPO/DPO provider lists, albeit at a lower fee schedule. Every transition requires the buyer to adapt to the changing circumstances of not only the transition, but of dentistry and the economy.

Alternatively, the buyer may decide not to be a Delta provider at all. This should not change the make-up of the current patient base if the patients are accustomed to the current fee schedule. However, it may affect attracting new patients if you're no longer a Delta Premier provider. The buyer could also limit the number of appointments available for the lesser paying insurance plans. One dental attorney believes that he has found language in the Delta contracts that will allow the doctor to "opt out" of the lesser plans after the purchase of the practice.

To summarize: In the short run, specifically for practice transitions, I don't believe that the value of the practice is diminished, unless there is a significant portion of the patient base who have been joyfully paying the difference between the fee schedules. Of course, the local marketplace always dictates price. However, in the long run, I am concerned that this is the "beginning of the end" where dentists, like physicians, will have their fee schedules dictated by insurance companies. Why won't Delta allow the patients to continue the "up-billing" procedure if the patient chooses a dentist with higher fees? Should it be our problem that they oversold the lower paying plan, so much so that they are forcing all new providers to take it? Obviously the Premier plan will simply disappear in a few years when employers realize that all the Premier providers are also DPO providers. This policy is truly disconcerting. I do not know what we can do about it as an organized group, but it may change our outlook on dental insurance. Since the allowed maximums for insurance coverage have not really changed much in 30 years, perhaps the best plan of attack is to educate our patients that they would be better off to decline dental coverage altogether and set up their own personal accounts with that premium money....just food for thought!!!

You may contact ***Dr Giroux at*****: wps@succeed.net or 800.641.4179**

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- **ANAHEIM:** *For Sale*-General Dentistry Practice. This 3 op had $253,000 in collections in 2011. There are 3 ops in this 864 sq. ft. office with 1.5 days of hygiene. Owner works 3 days per week. No welfare or HMO's. Laser, Dentrix Software and Intra-Oral Camera.

- **BISHOP:** *For Sale*-General Dentistry Practice and Building. After 29 years in the same location this retiring dentist is selling both his practice and building. Collections were $1,000,243 in 2011 with $387,000 Adjusted net income. There are 6 days of hygiene in this 5 op 1,800 sq. ft. building. 100% financing is available for both building and practice.

- **CHICO:** *For Sale*-General Dental Practice. The collections in 2011 were $1,209,207. There are 7 days of hygiene in this 5 operatory, 2,400 sq. ft. office. Equipment includes Laser, Intra-Oral camera, new Cone Beam X-ray and Dentrix software. This excellent practice has 1,824 active patients with 12 new patients a month.

- **EL DORADO HILLS:** *For Sale*-General dentistry practice. Gross Receipts of $834K with adj. of $389K, 53% overhead. Office has five equipped operatories in 1485 sq.ft. Pano, Intra-oral Camera, Dentrix, 5 days of hygiene. Owner retiring. SOLD

- **FOLSOM:** *For Sale*-General Dentistry Practice. Gross Receipts in excess of 1.5M the past three years. Adjusted Net of $550K. 2,700 sq. ft. office with 7 ops, Digital, Dentrix, Intra-Oral Camera, Lasers, 3+year old equipment, 8 days hygiene. Beautiful office, great location. Owner retiring. #14336 SOLD

- **FOUNTAIN VALLEY:** *For Sale*-General Dentistry Practice. Gross Receipts $284,000 with only 47% overhead. Practice has been in its present location for the past 37 years. There are two equipped operatories in this 5 op office. E2 2000 software. Doctor is retiring. SOLD

- **FREMONT:** *For Sale*-(General Dentistry Practice Facility and Equipment Sale) Beautiful Central Fremont office in upscale professional building. This is a facility sale with 4 fully equipped treatment rooms, panoramic x-ray, intra-oral camera and nitrous oxide plumbed throughout. Very modern design and efficient layout in approximately 1,400 sq. ft. Seller is relocation to a larger facility. Patients and goodwill are not included.

- **FRESNO:** *For Sale*-General Dentistry Facility. One of the best opportunities this year. This 3 op dental office comes equipped. It is in a great location and has about 200 active patients. Owner is in the process of completing his Orthodontic training and only works in the office 5 days a month. Complete pictures of the office and an inventory list of included furniture and fixtures are available. Everything included for only $85,000 You can't afford to pass this up. #14383

- **FRESNO:** *For Sale*-General Dentistry IV Sedation Practice. (MERGER OPPORTUNITY) Owner would like to merge his practice into another high quality general dentistry or IV sedation practice. The merger would be into Buyers office. Seller would like to continue to work as either a partner or associate after the merger. 2010 collections were $993K with a $422K adjusted net income. There are 7 days of hygiene. #14250.

- **GLENDALE:** *FACILITY SALE*-General Dentistry Office Space & Leasehold Improvements Sale- Office located in a medical plaza, 1760 sq. ft. 7 operatories, computerized equipment approximately 5 years old. Two 5-year options available. #14373

- **GRASS VALLEY:** *For Sale*-General Dentistry Practice. GR of $307,590 (3 days/wk) with adjusted net income of $105K. 3 Ops. refers out most/all Ortho. Perio, Endo, Surgery. Intra-Oral Camera, Diagnodent, EZ Dental Software. Good Location. Owner retiring. #14337.

- **GRASS VALLEY:** *For Sale*-General Dentistry Practice. GR 545K 3 days/wk (4 avail). 3 hygiene days/week. 5 Ops (6 Avail) 1,950 sq ft. Refers out most/all Ortho, Perio, Endo, Surgery. Office has Laser, Intraoral Camera, Pano, & Dentrix Software. Owner retiring. #14372.

- **GRASS VALLEY:** *For Sale*-General Dentistry Practice. Gross Receipts $491K with an adjusted net income of $130K. Overhead 73%. Office leased 1,555 sq ft. 4 equipped operatories 5 available. Laser, Intra-Oral Camera, Cerac, & Eaglesoft software. Owner would like to retire. #37108.

- **GREATER CHICO:** *For Sale*-General Dentistry Practice. Gross receipts in 2010 were $584K, with an adjusted net income of $152K. Approx 1,100 active patients. 4 operatories, Pano, Intra-Oral Camera. Easy dental software. Leased office 1,200 sq. ft. Owner is retiring. #14359.

- **HAWAII (MAUI):** *For Sale*-General dentistry practice. Gross Receipts of $636K. Office has four equipped operatories in 1198 sq.ft. Pano, Laser, I.O. Camera, Fiber Optics, 2 ½ days of hygiene. Owner retiring: Don't miss this opportunity to live and work in paradise. #20101

- **HAYWARD:** *For Sale*-General Dentistry Practice. This practice consists of 1,600 sq ft with 4 treatment rooms in an excellent location. 2010 Gross was $501,000 with a $228K adjusted net income. Dental Vision software, Average age of equipment is 8 yrs. Approximately 1,200 active patients.

- **IRVINE & COSTA MESA:** *For Sale*-General Dentistry practice combined. Gross receipts combined $781K with adjusted net of $396K. Both office spaces are leased with 4-5 ops in each. Both are 1,600 sq. ft. Irvine is equipped with Intra-Oral Camera, Pano & Dentrix. Costa Mesa is equipped with Laser, Intra-Oral Camera, Pano and Dentrix. #14355.

- **LAKE COUNTY:** *For Sale*-General Dentistry Practice. Gross Receipts 904K with adjusted net $302K. Practice has been in same location for past 23 yrs, and 25 yrs in previous location. 2,600 sq ft with 8 equipped treatment rooms. Intral-Oral Camera, Pano, and Data Con software. Owner to retire. #14338

- **LANCASTER:** *For Sale*-General Dentistry Practice. This 4 operatory office is located in 2,360 Sq Ft on the second floor of an attractive Medical Dental office building. Gross receipts were $676,000 with a $174K adjusted net income. Dentist is retiring after 39 years. 4 days of hygiene. Additional operatories could be added to existing space. Great location.#14376.

- **LEMOORE/HANFORD AREA:** *For Sale*-General Dentistry Practice & Building. Owner has worked in this location since 1971. Gross Receipts were $378K with $139K adj. net income. There are 3 equipped operatories and 3 days of hygiene. Purchase of the building is optional to the Buyer. 100% financing is available for both building and practice. Excellent opportunity for new grad or satellite practice. #14375.

- **LINDSAY:** *For Sale*-General Dentistry Practice & building. Gross Receipts $330K with adjusted net income of $219K. Owner has operated in present location for 27 years. Office space 1,489 sq. ft., 4 equipped operatories, Intra-Oral Camera, Soft-Dent software, 3-hygiene days a week. Owner retiring. #14363

- **MODESTO-TRACY-STOCKTON AREA:** *For Sale*-Pediatric Practice. $677,000 in collections in 2010 with a $357,000 net income. This 3-chair office is located in approximately 1,250 sq ft & has recently been remodeled. Patient Base software. Office equipped for NO2 & IV sedation. Practice has operated in its present location for 20 years.

- **NEWPORT BEACH:** *For Sale*-General Dentistry Practice. Practice has operated at its present location since 1986. Located in a highly affluent Newport Beach community. Three (3) hygiene days per week. Leased office space with 4 ops. in 1,450 sq. ft. Pano & Practice Works software. #14354. SOLD

- **NORTHERN FRESNO:** *For Sale*-General Dentistry Practice. This is a perfect starter or satellite practice. Excellent location in North Fresno. Gross Receipts in 2010 were $173K. Approximately 450 active patients. 3 operatories. Dentrix software. Leased office 1,200 sq. ft. Owner has been accepted to an Endodontic Residency after starting practice 1 1/2 years ago. SOLD

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- **NORTHERN CALIFORNIA:** *For Sale*-Endodontic Practice. This Endodontic practice is located in an upscale professional office complex. The owners condominium occupies 1,770 sq ft, There are 4 equipped treatment rooms with an additional 5th room available. Gross Receipts were $638K with $239K adjusted net income. Owner will stay for transition to introduce buyer. Owner is retiring. #14251

- **NORTHERN CALIFORNIA:** *For Sale*-Pediatric practice. Owner has operated in same location for 32 years. Approx 1,760 active pts, 1,160 sq ft panoramic X-Ray, Dexis Digital and Dentrix software in this 5–chair office. 2009 Gross Receipts $713K with 48% overhead. Owner retiring. Call for Details. SOLD

- **OCEANSIDE:** *For Sale*-Modern looking office. 4 op, office space and equipment only. Belmont chairs. Gendex x-ray system, intraoral camera, approx 1200 sq ft. Low overhead-Rent is $1,900/month, and it's a 5 year lease. Staff is available for rehire-front desk $15/hr, assistant 13/hr. Update all the computer systems after purchasing the office in 07. Computers and monitors in every room. #14346 SOLD

- **PLUMAS COUNTY:** *For Sale*-3 equipped ops. Space available for 4th op. 1,245 sf office in good location. Gross Receipts $475K. Practice in present location over 50 years. Owner is retiring. #14318

- **ROCKLIN:** *For Sale*-General Dentistry Practice. Gross Receipts $593K in 2010 with $240K adjusted net income. Office is 1,630 sq. ft., with 4 operatories equipped with fiber optics. Owner has been in present location for the past 13 years. 3 1/2 days hygiene. Intra-Oral Camera, Dentrix software. Owner to retire. SOLD

- **ROSEVILLE:** *For Sale*-General Dentistry Practice. Great Location. 2009 GR $900K with adjusted net income of $300K. 1,975 sq. ft. with 4 ops, 8 days hygiene/wk. Digital, Intra-Oral Camera, Dentrix, Trojan, Fiber optics, P & C chairs - all less than 5 years old. Owner is retiring. #14327 SOLD

- **SACRAMENTO:** Must be sold immediately. Well-established General Dentistry practice is desirable N. Sacramento location. Office is 1950 sq. ft. with 4 ops. plus fully functional dental lab. (porcelain oven, casting, splints) which can be converted into 2 additional ops., Digital x-rays and digital Pan, Practice Works software, 2010 Net receipts $1,967,047. Don't assume anything about the purchase price. Inquire immediately. Purchase price is totally negotiable.

- **SACRAMENTO:** For Sale-General Dentistry Practice. Gross Receipts $546K with adjusted net income of $159K. Office is 2,400 sq ft with 7 operatories. Practice has been operating in the same location for the past 50 years. Pano, Softdent software. Owner to retire. #14374

- **SACRAMENTO/ROSEVILLE:** *For Sale*-One of many partners is retiring in this highly successful General Dentistry Group Practice. Intra-Oral Camera, Digital Pano-Dexis, electronic charts, owner Financing. Call for further information. #14334

- **SAN BERNARDINO:** *For Sale*-General Dentistry Practice. GR $972K. Practice has been in its present location for the past 35 years. Leased 4,500 sq ft of office space- 12 equipped operatories. Dentrix software, Pano and Cerac. Accepts HMO. Multi-specialty practice. Owner to relocate. #14377

- **SAN DIEGO:** *For Sale*-General Dentistry Practice. 6 ops, Intra-Oral camera, Eagle Soft Software. Office square feet 2,300 with 3 years remaining on lease. 2009 Gross Receipts $1,448,520, with an adjusted net income of $545K. Doctor would like to phase out then retire. #14331 SOLD

- **SAN FRANCISCO:** *For Sale*-General Dentistry Practice. This 1000 sq. ft. office is located in the heart of the financial district. It is a corner office with each of the 4 operatories looking out at the incredible views on Golden Gate side of the bay. The 2011 collections were $1,200,000 with a low overhead. The practice averages approximately 15 new patients a month.

- **SAN LUIS OBISPO:** *For Sale* - Two Doctor General Dentistry Practice. Gross receipts $1,537,142 for 2010 with an adjusted net income of $691K. The office has 2,331 sq. ft. with 8 equipped operatories. Pano, E4D, and Dentrix software. Practice started in 1990 and has been in its present location since 1998. Approx. 3000 active patients. Great location with nice views. #14353. SOLD

- **SANTA BARBARA:** *For Sale*-General Dentistry Practice. This excellent practice's 2009 gross Receipts $891K with steady increase every year. Practice has 6 days of hygiene. 1,690 sq. ft., 5 ops, Lassers, Intra-Oral Camera, Schick Digital X-Ray, Datacon software. Doctor has been practice in same location for the past eleven years of his 31 years in Santa Barbara. Doctor is retiring. #14333 SOLD

- **SANTA BARBARA:** *For Sale*-General Dentistry Practice. Wonderful opportunity to live and work in one of California's most desirable areas. 2010 Gross receipts were $974,000 with a $370,00 adjusted net income. Six days of hygiene. Dentrix software, Intra-Oral Camera and Panoramic X-Ray. Owner is retiring. #14382

- **SANTA CLARA:** *For Sale* - BUILDING ONLY: This building is located just west of Westfield Mall and Santana Row. The building has two units. One side is designed and plumbed for dentistry and the other was a law office. There is 3,776 sq. ft. of office space. The dental office is approximately 1,800 sq. ft. with 6 operatories. The building has been recently re-roofed. Excellent opportunity for a startup practice or for the dentist that needs more space. Financing available through various dental lenders. #14368

- **SANTA CRUZ:** *For Sale*-General Dentistry practice. Gross Receipts $300K with a 57% overhead. Office is 1,140 sq. ft. 3 equipped operatories. Intra-Oral Camera, Pano, Digital X-Rays, and Dentrix software. Practice has been in its present location since 1980. Owner retiring. #14358. SOLD

- **SANTA CRUZ:** *For Sale*-General Dentistry practice. This excellent practice is centrally located in a professional complex. Office is approx. 1,885 sq. ft. 4 operatories with room for one additional. There are approx. 2000 active patients with 6 days of hygiene per week. Practice Pano, Intra-Oral Camera and Easy Dental software. Owner is retiring. Reasonable lease available. #14361 SOLD

- **TORRANCE:** *For Sale*-General Dentistry practice. This excellent practice is centrally located in a professional complex. Office is approx. 1,885 sq. ft. 4 operatories with room for one additional. There are approx. 2000 active patients with 6 days of hygiene per week. Practice Pano, Intra-Oral Camera and Easy Dental software. Owner is retiring. Reasonable lease available. #14320 SOLD

- **TORRANCE:** *For Sale* - General Dentistry Practice. Gross Receipts $413K with an adjusted net income of $203K. 50% overhead. Practice has been in its present location for the past 25 years. The office has been tastefully remodeled. Office is 800+ sq. ft. with 3 equipped operatories. 4 -hygiene days per week. Doctor is to retire. #14369

- **TRACY:** For Sale-Equipment, furnishings, and leaseholds only. In the Central Valley. Fully equipped including 4 Belmont Accutrac chairs, 2 Midmark with 6 DCI rear delivery units, 3 Gendex x-ray units, 1 Sordexdigital x-ray processor, 1 Statim 5000, 1 Harvey autoclave. 2,800 Sq ft, 6 Ops. New lease available from landlord. #14335. SOLD

- **TRI VALLEY PLEASANTON SAN RAMON AREA:** For Sale-ENDODONTIC PRACTICE. The adjusted net income was $186,000 in 2011 in this 3 operatory, 1000 sq. ft. office. Includes Microscope, X-ray Scanner and PBS software. Transfer of referral base should be excellent. Ideal office for new endodontist or as a satellite practice for established practitioner. Dr. is retiring.

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Health Care (AAAHC) and maintaining the highest standards of service. We, currently are looking for a Practice Manager in our Riverside Practice. In this position, you will manage the business operations of your assigned practices through the development of strong partnership relations with the Professional Corporation, the Managed Services Organization leaders and staff. You will manage the financial performance as well as manage employee performance and development processes for two practices. You will drive the practice revenue through doctor and hygiene schedule utilization, increasing patient base, expense control and analysis. Call 951-689-5031.

OPPORTUNITY AVAILABLE — Riverside Dental Group and Dental Associates, a dynamic, thriving group practice is looking for a treatment coordinator. In this position you will be responsible for ensuring that the patients know why they need the diagnosed treatment and obtain a financial commitment for the treatment plan. They will be the financial expert in the office by showing all patients how they can afford the dental treatment. This person will schedule and confirm appointments and complete general office work. You will post daily patient procedure transactions, process insurance verifications and submit insurance claims. You will support patients and practice staff to ensure efficiency in all aspects of practice operations. Focused on quality care and patient satisfaction. This ideal candidate must be energetic, have excellent communication skills, dedicated to patient satisfaction. If you have experience with dental insurance and the ability to multitask you should consider this opportunity. Call 951-689-5031.

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Photos of interior build out

OPPORTUNITY AVAILABLE — 20+ years established general practice in the Thousand Oaks area of Ventura County looking for an associate with possible future buy-in. Modern office with digital radiography, CBCT, CEREC and a fantastic staff. Applicants should be self-motivated and ambitious! This is an outstanding opportunity! Send CV's to toothdoctom@gmail.com, or fax to 805-496-9830.

OPPORTUNITY AVAILABLE — You Smile Dental in Sunnyvale is looking for a Pediatrician who can visit us 2-3 days a month. Preferably we are looking for some one who can either work on Fridays on Sundays. This job has a Base Salary + Commission based on the production. If interested please send us your resume. Contact 408-361-8133.

OPPORTUNITY AVAILABLE — General multi-dental practice serving the community for 10 + years, located in the San Joaquin Central Valley is seeking a highly skilled Orthodontist. Our chartless high-tech facilities are equipped with the latest in technology including digital radiography, digital panoramic/Cephalometic radiography, chair side multimedia, Dentrix G4 and more! If you are looking for a long-term opportunity with unlimited professional growth potential, please email your resume to bayala39@yahoo.com or ramonsf@comcast.net.

OPPORTUNITY AVAILABLE — We are a Professional, High Quality General, Cosmetic and Implant dental practice in Redondo Beach looking for a Treatment Coordinator with in depth knowledge of dental procedures, terminology, insurance, scheduling appointments and treatment coordination. RESPONSIBILITIES: Scheduling appointments for both doctor and hygiene; deliver exceptional customer service in person and over the phone; coordinating treatment/comprehensive treatment planning; patient education; coordinating patient finances. Job requirements & experience: Clinical experience preferred; prior Dental Treatment Coordi-

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3067 MID-PENINSULA GP
Gorgeous modern, highly visible GP in 3,000 sq. ft. office w/7 fully equipped ops. Approx. 1,600 active pts. & avg. 16 new pts./month. 4 doctor-days/week. 5 years avg. GR $991K+. Asking $808K.

SOLD

3062 SOUTH BAY OMFS
Established and well-respected OMFS available. Located in desirable professional & residential mix neighborhood 2 blocks from large mall. 1,080 sq. ft. office w/3 fully-equipped ops. Seller preparing to retire. 2010 GR $377K+. Asking $240K.

3049 SAN JOSE GP
Well-located, across from O'Connor Hospital, general practice in 2,118 sq. ft.state-of-the-art facility w/ 3 fully-equipped ops. 2 pvt. offices (1 can be plumbed for 4th op.). Ideal for an experienced dentist looking to merge an existing practice. Asking $195K.

3069 NAPA VALLEY ENDO
Endodontic practice now available in Napa Valley. Gorgeous state-of-the-art 1,450 sq. ft. facility w/4 fully-equipped ops & microscope in every op. Single story professional building. Well-established w/seasoned & loyal staff. Avg. GR over $1M past 3 years w/4.5 doctor days. Excellent referral sources and upside opportunity.

PENDING

3065 FREMONT GP
Don't miss this opportunity. Spacious 1,150 sq. ft. office w/3 ops. 2010 GR 169K+ w/just 2-2.5 doctor days. Owner retiring. Asking $124K.

SOLD

3059 SANTA CRUZ COUNTY GP & BDG
Charming practice tucked among soaring redwoods in Santa Cruz County. Located in a single level professional building in the heart of town. Well established and part of the small community landscape. 2010 GR $595K + w/3 doctor days. All fee-for-service. Owner retiring and willing to help for a smooth transition. This is a great turn key practice and opportunity to own a hidden gem. Practice asking price $373K, building is also available.

3064 SAN JOSE GP
Now available. Great turnkey opportunity. Beautiful 1,500 sq. ft. facility with 4 fully equipped ops. State-of-the-art fully networked office, Dentrix software, digital x-ray & recently purchased dental & office equipment. Avg. GR $328K+ with 4 doctor-days. Owner willing to help in transition. Asking $220K.

3057 SAN JOSE GP
Priced to sell. Located in 2 story professional building w/3 fully-equipped ops. in 990 sq. ft. office. Part of historic Rose Garden neighborhood; 1 block from the Alameda, & near a well travelled intersection. Seller transitioning due to health reasons. FY 2010 GR $415K. Asking Price $120K.

SOLD

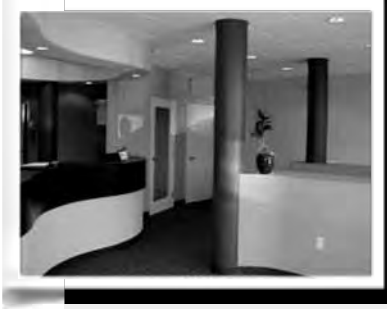
3061 SAN JOSE DENTAL FACILITY
Dental facility ideal for Pediatric or easily converted to GP. Located in desirable Evergreen area in a two-story, handicap accessible high profile, medical and professional building. Gross lease with utilities included expires July 2013 with 5 year option to renew. Modern, tastefully designed, approximately 1,321 square feet. Asking $95K.

SOLD

UPCOMING LISTINGS:

3068 MONTEREY COUNTY GP
2,000 sq. ft. state-of-the-art office w/6 modern, fully-equipped ops. & w/digital x-ray. Long term & loyal staff. Approx. 1,500 active patients all fee-for-service. 3 year avg. GR $1.7M, 2011 GR on schedule for $1.8M.

3071 MID-PENINSULA GP
Well-established 3 op GP in desirable neighborhood. 1,400 sq. ft. facility. Ownership in building available.



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OPPORTUNITY AVAILABLE — If you have 5 years of dental office management experience and are expert in billing and at using Dentrix we would like to hear from you. Experience working with specialists is a plus. Highly competitive salary, plus bonus. Email bayareadentist2009@gmail.com.

OPPORTUNITY AVAILABLE — We are looking for a General Dentist for a growing multi-specialty office in Salinas. If you have at least 3 years of hands-on experience and have the following qualifications we would love to hear from you: Experience in all phases of general dentistry, experience in performing root canals and extractions, complex root canals and extractions can be referred out to in-house specialists, implant experience preferred but not required, Invisalign experience highly desired, mindset to meet and exceed production goals without compromising quality dentistry. Highly competitive, performance-based compensation. Please fax your resume to 408-493-4585.

OPPORTUNITY AVAILABLE — Private dental office seeking for a full time front office staff. Primary responsibility is to maintain orderly front office and a productive schedule each day. Job duties include internal marketing, checking in patients, setting up and confirming patient appointments, answering phone calls. Must be able to build rapport with patients quickly, professional and must have good communication and organizational skills. Can work on some Sundays. Email kingslydentistry@yahoo.com or call 909-799-7777.

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OPPORTUNITY AVAILABLE — Seeking an outgoing and energetic Associate Dentist to join our state-of-the-art private family practice in the Antelope Valley. Close to Los Angeles without the traffic and high prices. A minimum of 2 years of experience is required. Most procedures are performed in the office. Please contact Adam at 661-945-2616 or contact@dsdg.com for more details.

OPPORTUNITY AVAILABLE — A growing private practice in Turlock is in need of an experienced general dentist. We are a well established practice with a team that is focused on providing the best quality service and customer care for our patients. Need a dentist who has not only great technical skills, but also one who is adept at treatment planning and communication. Financial practice opportunity is limitless to the right individual. Email turlockolive@hotmail.com or call 209-668-4013.

OPPORTUNITY AVAILABLE — Seeking dentist to provide preventive & operative dentistry for busy dental office. Email anna.arias@hotmail.com or call 909-930-2500.

OPPORTUNITY AVAILABLE — Looking for Superstar Dentist for progressive general office in Santa Monica. Please email resume to manhattanbeacgdental@gmail.com.

OPPORTUNITY AVAILABLE — High-tech office, seeking an energetic, compassionate, and experienced dental hygienist in Torrance area. Immediate hiring. Please fax resume to 310-257-1112.

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6008 - MENDOCINO COAST'S FORT BRAGG 2011 collected $725,000. 4-days of Hygiene. 4-ops (each with own computer), digital radiography. Great family community.

6015 - SONOMA COUNTY'S HEALDSBURG - "SOLD" 4-day Hygiene schedule. Collections totaled $547,000 with Profits of $235,000 in 2011. Rare opportunity in unique community.

6017 - CAMPBELL - "SOLD" $389,000 invested here. Adec delivery systems, digital radiography, computer charting, Biolase Waterlase & Panorex. 2011's collections topped $600,000.

6018 - SAN JOSE'S CAMPBELL Successful practice in esteemed Group. Seller averages net production of $440,000 (excludes Hygiene), collections of $430,000 and Profits of $200,000. Group performs at $3.8 Million/year level.

6020 - PEDO PRACTICE - ATTRACTIVE NORCAL FAMILY COMMUNITY 2011 collected $455,000 on 26 hour week with Available Profits of $208,000. 2012 is doing better. $230,000 invested here. Beautiful office. Full price $240,000.

6021 - SANTA CRUZ - "SOLD" Great location. Busy Hygiene Department booked 6+ months. 2011 collected $415,000. Lots of goodwill here.

6022 - SAN FRANCISCO'S NORTH BAY - SEBASTOPOL DENTAL OFFICE 8 miles west of Santa Rosa. Beautiful office in great family community. Total investment of $230,000. Asking $65,000.

6023 - LOS GATOS 2011 collected $240,000 on 3-days. 6-year office has $215,000 invested. Adec delivery systems, Adec cabinets, digital radiography, digital Pano and paperless charting

6024 - PERIO PRACTICE - SAN FRANCISCO'S SOUTH BAY – "COMING UP" Does $650,000 per year. Great location. Will be available shortly.

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3193 - PALM DESERT Grossing $400,000+. Great Location.

3237 - ANAHEIM HILLS Solo group member wanted-Hi-identity-HiTech share beautiful space.

3240 - REDLANDS GP Est - 5 Ops. Shopping ctr. Should do $300K to $400K first year with little marketing. Great lease. $1.00 sq. ft. FP $285K

3250 - ANAHEIM NW Disneyland. Part time Seller. 2 days wk. Hi identity corner. Grossing $370K in '09. 1,800 sq. ft. 5 Ops equipped. Low rent.

3283 - PALMDALE/LANCASTER Hi growth area. GP Gross $1.5 mil. 40% Net. Small town! 5 min from Bakersfield. RE available.

SMALL TOWN Minutes from Bakersfield. Modern RE. Practice Grosses $20-to-$40K per month. Bargain.

APPLE VALLEY/HESPERIA Gr $700 to $800 Free Std Bldg Avail Absentee.

3287 - SOUTHERN CALIFORNIA - "SOLD" $6 Million per year. Prestigious Hi identity location. 12,000 sq.ft. $1.00/sq.ft. $30K Cap/mo. Requires substantial net worth. Nets $1+ Million.

3297 - SOUTH BAY Location Only. Free standing Dental bldg on main street.

3298 - LONG BEACH AREA - "SOLD" Corner Location. Bread and Butter practice. Long established. Collects $500K per year.

LA HABRA -"SOLD" Great starter Shopping center with low rent, low overhead, 4 ops in over 2000 sq. ft. Rent only $2700. Grossing $15,000 to $30,000 per month. Full Price $185,000.

TEMECULA/HEMET HMO. Gr. $700,000 part time. 8 ops fantastic location Million Dollar corner. Full Price $565K.

3304 - GLENDORA Hi identity shopping corner. New Location. GP who likes Ortho also as no Ortho in area. Full Price new office $200K to $250,000.

LA HABRA - "SOLD" New life in 20 yr. Prtc corner near Whittier @ Beach. 290 new patients since May. Gr. 20K plus Grt Staff New Digital office. Must Sell below cost $185K super proved BARGAIN.

ORANGE Grosses $30K+/mth. 5 ops. Beautiful. Rent $2,000. FP $250K.

HEMET/TEMECULA HMO. Absentee owner. Grosses $700K. PPS says Buyer will do $1.5 Million within 18 months. Special Situation.

TORRANCE Special Diamond Location. Hi Identity. Will Gr $500K first year. $125K FP.

VICTORVILLE-APPLE VALLEY-HESPERIA AREA Estb 20 yrs. Gr $700K+. Net approx $300K. More vol avail. 8 op. Hi identity shop ctr. FP $650K. Serious Seller. Can do $1 Million.

SANTA ANA Super Hi identity intersection. 50,000 to 75,000 auto/day. 5 ops. Grossing $40-to-$60K/mth. Net $200,000 to $300,000. Great opportunity to build Million Dollar office here.

LANCASTER Estb 50 years - Hi identity central location, low overhead. Gross $480,000 by part time owner. Seller can work back per new owner. Five operatories.

ORANGE COUNTY Beautiful office. Right buyer will gross $2 million first year. Financing in place. Need Entrepreneur who has team of specialists in place or Dentist with multiple talents. HMO/PPO/Ins/Cash. Includes 9 days hygiene. 10,000 charts. As stated, right team will do $2 million first year.

BEVERLY HILLS Implant Center $1,450,000; 3 ops - 1,450 sq.ft. Beautiful facility access to neighbors CT Imaging Center. Full price $995,000 a bargain - BH most prestigious Dental building. Pride of ownership - Pros would work back for transition. Moving to Desert.

MALIBU Part time GP Grosses $240,000. 4ops. Full price $172K.

CLASSIFIEDS, CONTINUED FROM 372

OPPORTUNITY WANTED — After over 20 successful years, I sold my upscale, private practice and I am looking to relocate to Southern CA. Let me e-mail you my list of advanced CE courses I have attended, as well as testimonials and photos from my previous patients. This will let you get to know a little bit about me, as well as the high quality of restorative and cosmetic dentistry I can provide. I have an excellent chair side manner, my patients and staff really know I care. I have my CA license, and can quickly be wherever needed when the right opportunity arises. I am looking for a long-term relationship in a high quality, patient centered office. Email tamjag@aol.com or call 949-922-5987.

OPPORTUNITY WANTED — I am a female dentist with 4 years of experience from UCSF. I am very personable and work well with patients and staff. I can preform molar endo with great fill in 45 min. I am an advanced CEREC doctor. I work well with pedo. I have experience in treatment planning, HMO/PPO insurance. I am looking to work part or full-time and can relocate if the opportunity is right. I have a great work ethic and looking to grow with a practice. Contact samiradds@gmail.com or 714-390-8449.

OPPORTUNITY WANTED — Looking for a part time opportunity. More then 5 yrs experience. Willing to do hygiene work. - udbdad-online@yahoo.com - 510-299-7956.

OPPORTUNITY WANTED — I am an experienced general dentist looking for a long term associate position in the greater Sacramento area, Roseville, Rocklin, Stockton, Davis, Vacaville or Placerville. In my private practice, I followed a patient centered approach to dental care with an emphasis on quality of care and evidence based dentistry. I work well with staff members, and appreciate the hard work that they do. My experience ranges from managing a multi-dentist office to 18 years private practice dentistry (owner). Contact: 916-439-7658 or pr520k@sbcglobal.net.

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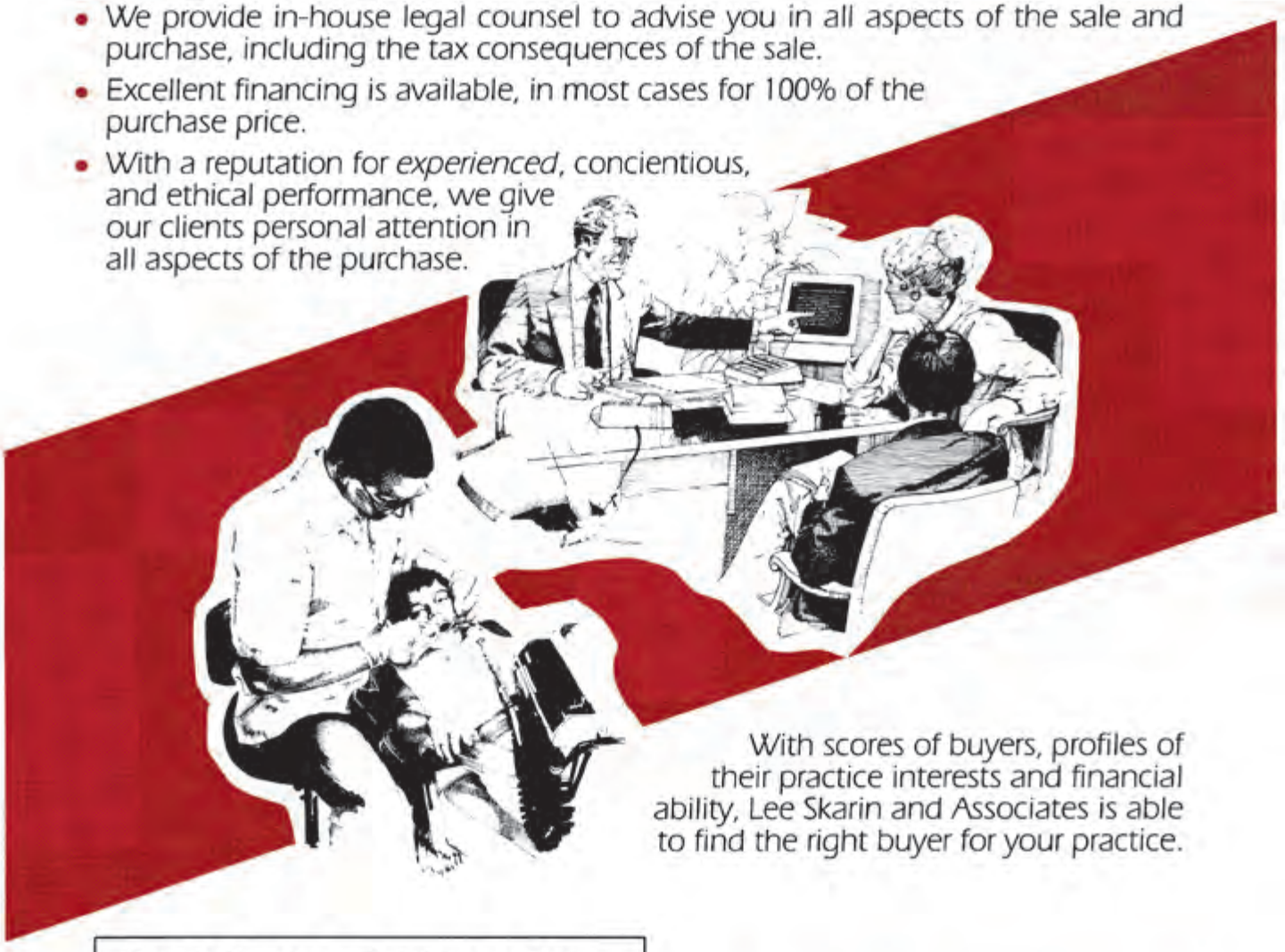

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DR. BOB, CONTINUED FROM 378

munication that lasted only 19 months (April 1860-October 1861) and is best remembered for promoting the career of a man named Buffalo Bill Cody. He was credited with making alliterative celebrity names popular such as Roy Rogers, Mickey Mouse and Droopy Drawers Druitt (you don't know him). Cody was the first to discover buffalo were not just hairy cows. Renamed "bisons," they were successfully promoted in all sorts of ways such as "Buffalo Bob," "Buffalo Girls Won't You Come Out Tonight?" and the upgrading of wooden nickels to "buffalo nickels," now worth up to 5 cents each.

The only available postmen at the time were "cowboys," a term applied to young men who rode cows for reasons now forgotten. These boys (preferably orphans) were recruited to deliver mail from St. Joseph, Mo., to San Francisco, but the cows, once saddled up, were too slow, plodding along with those annoying bells around their necks and stopping at odd moments to exchange bovine pleasantries with cows in adjoining pastures. Furthermore, they demanded to be halted each day at four o'clock for milking, or they would lie down in the middle of the road and refuse to budge. Mail delivery frequently ended closer to Wichita, Kan., than San Francisco when all involved went home for a late supper after learning nobody lived in Wichita at the time.

Later it was discovered that if you (not me) rode, say, a horse like crazy for about 50 miles in more or less a straight line, then traded it for a "fresh horse"(because the old one smelled pretty bad by now), then repeated this for 1,966 miles, the mail to San Francisco could be delivered just in time for your funeral.

During the 1800s, history was occurring at an alarming rate. You could Google this if you like, but I wouldn't recommend it. Briefly, what happened was a Civil War was fought between North and South and a transcontinental railroad was built between East and West by Chinese laborers who mistakenly believed Shanghai was just outside Petaluma. Californians, busy fighting over gold claims and opening Starbucks franchises, couldn't care less about getting mail from the East, particularly notifications demanding they report to their draft board forthwith, in which case there was plenty of time for it to be sent by ship around the Horn.

Californians, busy fighting over gold claims and opening Starbucks franchises, couldn't care less about getting mail from the East.

In 1844 the telegraph was perfected to the point where this epochal message was sent from here to there: "What hath God wrought?" Not much evidently other than reporting the Whigs held a convention in Baltimore and eggplants were no longer popular as dessert. Telegraphy met with limited success finally when college kids discovered they could tap the family exchequer via Western Union. Faster, surely, and occasionally productive, but another nail in the postal agency's coffin.

Things went downhill rapidly at this point, culminating in the arrival of personal computers signaling the demise of cursive writing. There was no turning back; the Electronic Age, correctly predicted by Thomas Edison and Steve Jobs, aided and abetted by Microsoft and the guy who opened the first Best Buy, was on. The short, but thrilling careers of Pac-Man and Donkey Kong faded the moment "texting" was invented by a spastic-thumbed 14-year-old who had never mastered spelling, complete sentences, or coherent thought processes.

The Postmaster General knew his agency was on the skids when revenue revealed snail-mail was out, e-mail was in. He countered by authorizing bulk rates on junk mail addressed to "Resident," or the more personal "Occupant." Private diaries gave way to "blogs" that instead of being hidden under wraps somewhere, were open for instant inspection by everyone in the world, including those in orbit.

Even grown ups who were not ashamed to reveal they had no idea of what was epochal and what was unmitigated drivel eagerly "Twittered" themselves into a frenzy on an hourly basis. Soon the entire nation under the age of 90 gathered themselves into groups of one, huddled over their laptops or latest app-laden cell phones in solitary pursuit of relationships wherein face-to-face contact is never an annoying requirement.

Nonagenarians, who are both loopy and out of it simultaneously, are invited to visit their local post office on Wednesdays to reminisce with the nice old gentleman and his cat behind the stamp window. He'll leave a light on for you. ■■■■

CDA JOURNAL, VOL 40, Nº4

Going Postal

The Postal Service is still running in the red as it has done reliably since its inception back in 1775.

Robert E. Horseman, DDS

ILLUSTRATION BY DAN HUBIG

About once a month for as far back as I can remember (July 9, 1894), the media have been constantly hovering on the brink of syncope, clucking dutifully about the sad state of affairs with the U.S. Postal Service.

And tragic it is, indeed. The cost of a 3-cent stamp rose 500 percent, penny postcards languish, unsent, for 29 cents, and the strictures applied to package sending are too complicated and expensive to contemplate except while standing in an endless queue during the Christmas rush at your local post office.

In spite of revenues exceeding $67 billion in 2010, the Postal Service is still running in the red as it has done reliably since its inception back in 1775. The latest bulletins are edging ever closer to administering extreme unction to this noble agency by announcing the imminent closure of thousands of post offices with the termination of an uneasy percentage of its 574,000 employees.

This means that 90 percent of the temporary window closures normally encountered at your post office will be permanent. Realizing this was a hollow threat customers would hardly notice, USPS rolled out the "no more Saturday delivery" press release that served only to elicit little cries of expectation from UPS and FedEx truck drivers. If the announcement was calculated to pinion our concerns, it failed, because nobody has ever received anything on Saturday worth reading anyway. I haven't received any readable material on Saturday for five years since Victoria's Secret deleted my name from its mailing list.

The point is, everyone could see this coming as far back as the Pony Express. This was an ill-fated episode in com-

CONTINUES ON 377

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- **IRVINE PERIO - REDUCED!!** Asking $219,000; Great, very busy location! Great base of referrals and patients; Largely implant focused;
- **LOS ALAMITOS** - Established for over 35 years; private & PPO; USC grad seller; Asking $415,000 not including the accounts receivable.
- **IRVINE** - Asking $350,000; Approx. 1,700 sq. ft.; 4 ops: 2 equipped; Across from The District, great location; Digital X-rays.
- **LAGUNA ENDO - SOLD!!!** Professional building, good starter practice with a solid referral base; Incredible location.
- **ANAHEIM HILLS** - Asking $360,000; Approx. 1900 sq. ft.; 5 ops: 4 fully equipped; Digital X-rays; Great visibility; Next door to Starbucks!
- **IRVINE - SOLD!!!** Asking $525,000; Located in professional building; 4 ops; Long-established; New equipment.

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