Surgeon General Releases First Report Focused on Smoking Cessation in 30 Years

Official Press Release (excerpt). Three decades after the first Surgeon General’s report on smoking cessation, the Surgeon General has released a new report that reviews and updates evidence on the importance of quitting smoking. The report finds that more than two-thirds of U.S. adult cigarette smokers report interest in quitting cigarette smoking, and the majority of adult cigarette smokers in the United States have tried to quit during the past year.

In addition to discussing the immediate and long-term health and economic benefits of smoking cessation at the individual and societal levels, this report presents updated findings on nicotine addiction and genetic factors that may impact smoking behaviors. Finally, the report discusses the wide variety of clinical and population-based interventions that have been scientifically shown to effectively increase smoking cessation.

“We know more about the science of quitting than ever before. As a nation, we can and must do more to ensure that evidence-based cessation treatments are reaching the people that need them,” said Surgeon General Vice Adm. Jerome M. Adams. “Today, I’m calling on healthcare professionals, health systems, employers, insurers, public health professionals, and policy makers to take action to put an end to the staggering – and completely preventable – human and financial tolls that smoking takes on our country.”

“The steady decline in the number of Americans who smoke cigarettes is one of the great public health victories of recent decades, and this success has continued under President Trump,” said HHS Secretary Alex Azar. “Americans who quit cigarettes can add as much as a decade to their life expectancy. Unfortunately, millions of Americans still smoke cigarettes. But the good news is that, as the Surgeon General’s report shows, we know more than ever before about effective ways to help Americans quit. Working together, we can make tobacco-related disease and death a thing of the past.”

Though cigarette smoking among American adults is at an all-time low (14%), it remains the leading cause of preventable disease, disability, and death in the United States. Approximately 34 million American adults currently smoke cigarettes.

The Surgeon General’s report on smoking cessation, the 34th report on smoking and health since 1964, was compiled using a longstanding, peer-reviewed, and comprehensive process to safeguard the scientific rigor and practical relevance of Surgeon General’s reports on tobacco. The evidence reviewed and summarized in this report can serve as a catalyst for efforts to further reduce the health and economic burden of tobacco product use in the United States.

For more information on the Surgeon General’s report, and to read the entire press release, visit www.SurgeonGeneral.gov or www.cdc.gov/CessationSGR.
What does the other direction of medical-dental integration look like? [Part 2]

Last month, I brought up the other direction of medical-dental integration (a.k.a. “integrating oral health and primary care”). According to the American Dental Association (ADA) there are 27 million Americans who visit a dentist each year but who don’t see their physician. That same ADA Health Policy Institute graphic reports that screening for chronic diseases in dental offices could reduce U.S. health care costs by up to $102.6 million per year, or up to $32.72 per person screened. We have the opportunity as oral health professionals to educate our patients about the importance of oral health to overall health and then screen our patients for chronic disease to enhance their overall health.

In that last issue I talked about depression screenings in a dental setting, vaccinations being a new frontier in dentistry, and diabetes screenings by oral health professionals. In this issue I’ll talk about what oral health professionals are doing in regards to blood pressure screenings and what dentists are doing to educate patients about pain management in light of the ongoing opioid epidemic.

I’ll share some real examples of how oral health professionals work side by side with their medical colleagues to ensure coordination of services. In fact, a commentary by three distinguished dental public health experts in 2018 – Drs. Kathryn Atchison, Gary Rozier, and Jane Weintraub – makes the case for a “patient-centered home that includes bi-directional access and communication across oral health and primary care.” This bi-directional approach expands upon HRSA’s 2014 Integration of Oral Health and Primary Care Practice, and in the last issue and this issue of the newsletter I focus on what we can do as oral health professionals to improve overall health of our patients.

I was recently reminded about a curriculum that expands on integration of oral health and primary care. The National Interprofessional Initiative on Oral Health (NIIOH) is a foundation-funded, multi-year project to promote oral health within primary care. One of the ways NIIOH does this is through the Smiles for Life curriculum. This curriculum consists of eight online modules including the relationship of oral and systemic health; child oral health; adult oral health; acute dental problems; pregnancy and women’s oral health; caries risk assessment, fluoride varnish, and counseling; the oral exam; and geriatric oral health. The curriculum has been endorsed by multiple medical and dental organizations, and oral health professionals can use the courses to teach others as well. To learn more, click on the above hyperlinks.

Thanks to the many clinics across the country who have provided me with great examples of these promising practices. As I mentioned in the last issue, these illustrations are not meant to be prescriptive, but are meant to demonstrate promising and best practices for oral health-primary care integration; providers should provide care within their scope of practice as defined by clinical privileges and their state’s dental practice act in the state where they are licensed.
One in every three U.S. adults, 75 million Americans, have hypertension, and another one-third have pre-hypertension, blood pressure numbers that are higher than normal but not yet in the hypertension range. Hypertension is the primary or contributing cause of death for more than 1,100 deaths each day, and the costs of this chronic condition—including health care services, medications, and missed days of work—are nearly $50 billion each year. These startling statistics from the CDC Division for Heart Disease and Stroke Prevention, combined with the previous mention that 27 million Americans visit a dentist each year but don’t visit a primary care provider, are reasons enough why all oral health professionals should routinely conduct blood pressure screenings on patients in the dental office.

Research seems to back this statement. A 2011 study published in BMC Public Health examined over 1,000 patients that presented for a routine dental examination and who had no previously known hypertension. Of these patients, all at high risk because of body mass index or age, 237 screened positive for hypertension, and 230 of these subsequently followed up with their primary care provider. Ultimately, 76 were diagnosed with hypertension by their primary care provider. Early detection and treatment for hypertension substantially reduces the incidence of cardiovascular events, which is why the U.S. Preventive Services Task Force recommends screening for high blood pressure in adults aged 18 years and older.

Despite this recommendation, many oral health professionals do not routinely screen patients for hypertension, opting instead to check blood pressure only when surgical procedures are to be performed. However, there are many examples of programs across the country embracing routine blood pressure screenings. HealthWorks for Northern Virginia, for example, routinely checks blood pressure and heart rate on every patient over 18 years of age at each dental visit. Dr. Linda Renner, the chief dental officer at the community health center, relayed a poignant story demonstrating the impact of these screenings:

“A 49 year old female patient was seen in our office in September of 2018. I’ll call her Brenda. Brenda normally works 12-13 hours shifts daily standing up at a dry cleaner. Her previous documented BP readings were within normal limits. In spite of her relaxed demeanor there was no doubt her pressure was high: 170/100. As I came into the operatory I noted her blood pressure and took a glance at her whole body. I noticed Brenda’s ankles were swollen. I told her I really wanted her to be seen by our medical staff and she was reluctant since she was feeling well. I pointed out that her ankles were swollen and she could benefit from finding out what was the cause. She agreed to have medical take a look. As usual when we have a patient with high blood pressure readings we call to our medical staff upstairs who are quick to come down and check on our patients. A nurse quickly responded, taking Brenda upstairs for a consult. I did not see Brenda for 9 months. In June, 2019, Brenda came into our dental clinic with a big smile on her face. She gave me a big hug and said she was so grateful for us. As it turned out HealthWorks medical staff discovered several underlying issues that contributed to her high blood pressure. She was referred to a cardiologist who later admitted her to the hospital. She spent 10 days there where she reportedly nearly died from kidney failure.”

A dental assistant performing a blood pressure screening at HealthWorks for Northern Virginia (courtesy of Dr. Renner)
Dentists at the Forefront of the Opioid Epidemic with Screening & Education

Back in 2011, a study published in the Journal of the American Medical Association raised the alarm bells on the impact of dentists on the ongoing opioid epidemic. It showed that, for 2009, the largest percentage of opioid prescriptions from outpatient U.S. retail pharmacies in the 10-19 year age group were from dentists, and dentists were among the top opioid prescribers across all age groups:

A National Center for Health Statistics (NCHS) data brief in November 2018 attributed 1999 as more or less the beginning of the first wave of opioid overdose deaths that began with prescription opioids, followed by a second wave in 2010 of heroin overdose deaths and a third wave starting in 2013 with a rise in synthetic opioid overdose deaths. Fortunately, the percentage of total U.S. opioid prescriptions that are prescribed by dentists has decreased significantly over the years, according to data from the American Dental Association’s Health Policy Institute (ADA HPI). In 1998, 15.5% of all opioid prescriptions were prescribed by dentists, but by 2012, dentists only accounted for 6.4% of total U.S. opioid prescriptions. Additionally, through increased training, increased participation in Prescription Drug Monitoring Programs, and increased regulation, dentists have decreased the amount of pills prescribed, according to the ADA HPI: from 2010-2015, the median number of days’ supply of opioids prescribed by dentists was 3 days and the median quantity of pills prescribed was 20.

Still, there is more that oral health professionals can do. One example is what is being done at Valley Health (VH), a network of community health centers located in southwestern West Virginia, the epicenter of the opioid crisis. Frequently individuals with Substance Use Disorder (SUD) enter the healthcare system through the dental department with tooth pain. Dentists at the community health center have completed training in the recognition of patients who may have or be at risk for SUD and in the use of a screening, brief intervention, and referral to treatment (SBIRT) tool. Using that tool, they are able to refer patients to their behavioral health program that offers Medication Assisted Therapy (MAT) for the treatment of SUD.

Screening patients for SUD, embracing non-opioid pain management concepts, and appropriate referral for SUD are all best practices for oral health professionals in this ongoing national epidemic.
February is **National Children’s Dental Health Month** (NCDHM). Begun as Children’s Dental Health Day on February 8, 1949, NCDHM was first observed as a month-long occurrence in 1981. Sponsored by the American Dental Association (ADA) and co-sponsored by the American Academy of Pediatric Dentistry and the Dental Trade Alliance, this year’s theme celebrates the 75th anniversary of community water fluoridation.

In 1945, Grand Rapids, Michigan became the first U.S. city to fluoridate its water supply, and five years later the schoolchildren of Grand Rapids were found to have significantly fewer cavities than children from surrounding communities. Statistics just released by the Centers for Disease Control and Prevention show that 72.8% of Americans on community water systems were receiving fluoridated water in 2016.

As part of NCDHM, the ADA and co-sponsors have developed a poster to commemorate the 75th anniversary with the slogan “fluoride in water prevents cavities!” The ADA has also continued to provide a **series of articles** that oral health professionals – and medical colleagues – can use to promote oral health. These include (1) “Are you prepared for a dental emergency;” (2) “Sipping, Snacking and Tooth Decay;” (3) “Mouth guards: Sports equipment that protects the smile;” (4) “Oral Piercing: Not as safe as you think;” (5) “Quitting Tobacco: You can do it;” and (6) “Sippy Cups and Your Child’s Teeth.” Click on the hyperlink above to download these articles. There are also many other resources including activity sheets for children, a program planning guide, and more on the ADA [NCDHM website](#), and you can also get ideas for classroom and family night activities for infants, children, and pregnant women as part of NCDHM from the [National Maternal and Child Oral Health Resource Center](#).

Another event occurring in February is **Give Kids A Smile** (GKAS),® another program launched nationally by the ADA in 2003 that has resulted in more than 5.5 million underserved children receiving free oral health services. Each year approximately 10,000 dentists and 30,000 other team members provide care at several thousand events across the country. The 2020 GKAS® event is scheduled for February 7, 2020, although participating programs can hold events throughout the year.

Already for 2020, over 20,000 dentists and almost 40,000 additional team members have pledged to provide support to over 350,000 children. The Indian Health Service Division of Oral Health is one such program. The IHS has over 100 of its 404 dental programs participating in the 2020 GKAS® event, a result of a memorandum of understanding between the IHS and the ADA. This is the first time that IHS has participated in this event at the national level. I’ll provide more details on the IHS’ effort in the next newsletter issue.

Click on the above links to learn more about GKAS® or NCDHM.
Did you know that February is also National Pet Dental Health Month?

Bad breath in cats and dogs is a very common complaint of pet owners and may indicate the animal is experiencing a serious health problem. Like human children, failing to address oral hygiene problems in pets may lead to irreversible damage to their teeth and gums, as well as life-threatening diseases. Pets can also carry germs in their mouths that may make humans, particularly those with weakened immune systems like young children and the elderly, sick. It is important that pet owners discuss pet dental health concerns with their veterinarian and take pro-active measures to prevent the development of dental disease in their pets.

According to the American Animal Hospital Association (AAHA), by three years of age most dogs and cats have some level of periodontal disease. This can in turn cause infection, pain, and decreased quality of life in our pets. Since they can’t go to the dentist on their own like their human companions can, our pets depend on us to take them for regular checkups.

The American Veterinary Medical Association (AVMA) recommends that responsible pet owners make dental health a daily ritual by teaching your pets how to accept a daily tooth brushing (click here to watch a video on this subject). Learn more about pet care through the above links, on the CDC’s Healthy Pets, Healthy People website, or through the National Pet Dental Association.

Pre-Report Promotion Continues Across the Country

The first-ever Surgeon General’s Report on Oral Health, entitled Oral Health in America, was released in 2000 and had as its major message that oral health means much more than healthy teeth and that it is integral to the general health and well-being of all Americans. Since that report was first released, a lot of things have changed and a lot of things have not changed related to oral health in this country.

Work continues on the development of the second-ever Surgeon General’s Report on Oral Health by a team of almost 400 editors, reviewers, and contributors. VADM Adams, in his charge in commissioning the report, stressed the importance of oral health in relation to overall health: “The report will describe and evaluate oral health and the interaction between oral health and general health throughout the life span, considering advances in science, healthcare integration, and social influences to articulate promising new directions for improving oral health and oral health equity across communities.”

As the report continues to be developed, several of us have been speaking to various organizations and schools around the country to promote the report and the contemporary issues that will be addressed in the report. In January I had the pleasure of speaking to multiple groups about the report and the changes happening in this country that will affect how they practice the art and science of dentistry in their careers.

First, on January 13th I joined panelists including Mary Otto (author of the book Teeth), Dr. Mike Monopoli (Executive Director of Grant Strategy at Tufts University), and others. The panel was titled "Challenges and Opportunities in Oral Health Care."
DentaQuest), Dr. Nicholas Gordon (a private practice dentist in Maryland), and student Amanjot Sarao (who has done numerous mission trips) at Tufts University School of Dental Medicine in Boston to speak to over 100 first-year dental students about public health and the Surgeon General’s Report on Oral Health.

On January 24th I traveled to Howard University College of Dentistry in Washington, D.C. to speak with over 150 dental students. This historically black college and university (HBCU) is one of just two HBCUs in the U.S. (the other being Meharry in Nashville). Founded in 1881, this is one of the five oldest dental schools in the country, and many distinguished dentists have walked the hallways of Howard, including Dr. Ruth Lashley, after whom one of the USPHS Dental Category awards is named. One of the hosts for the event was CAPT (Ret.) Gail Cherry-Peppers, a former dental officer with the Food and Drug Administration Center on Tobacco Products and now on the faculty in the College of Dentistry.

On January 25th, I attended the meeting of the American Dental Association’s Council on Government Affairs (CGA) at the ADA offices in Washington, D.C. This annual meeting is a great opportunity to network with my counterparts in the Army Dental Corps, Navy Dental Corps, Air Force Dental Corps, and Veteran’s Affairs Dental Program. It was also an opportunity for me to provide an overview of the USPHS Dental Program, the Commissioned Corps, important national issues impacting public health and oral health, amplify the Surgeon General’s priorities, and continue the conversation about the forthcoming oral health report. Accompanying me this year were CAPT
Renée Joskow, Chief Dental Officer of the Health Resources and Services Administration, and CAPT Stephanie Burrell, Chief Dental Officer of the U.S. Coast Guard.

On January 27th I traveled to the Lake Erie College of Osteopathic Medicine (LECOM) School of Dental Medicine in Bradenton, Florida where I spoke to over 115 third year dental students and faculty about the U.S. Public Health Service and the Surgeon General’s Report on Oral Health and toured the school. What I found intriguing about this dental school were the innovative ideas in education including problem-based learning of basic sciences like microbiology through case studies rather than traditional lectures and clinic pods of 10-15 chairs without established specialty departments like other schools. The school, started in 2012, sits on a beautiful campus and looks immaculate inside, even in the preclinical labs!

The following day, after returning to my Nashville office, I had the pleasure of meeting with the Dentaquest National Oral Health Connection Team, oral health advocates from across the country, who were meeting in Nashville. I provided a concise overview of oral health disparities and some of the issues affecting access to dental care in the country now and in the future.

Finally, on January 29th I had the pleasure of being the keynote speaker a second straight year for the National Dental Association’s Interprofessional Student Leader’s Summit in Rockford, Tennessee at the headquarters of Remote Area Medical, where I spoke to about 30 medical, dental, and public health student leaders.

Thanks to Kathy Dolan, Dr. John Morgan, and Dean Nadeem Karimbux (Tufts), Dean Andrea Jackson and CAPT (Ret.) Gail Cherry-Peppers (Howard), Dr. Katie Dinh and Dean Mathew Bateman (LECOM), Dr. Marcia Brand (Dentaquest), and Dr. Hazel Harper (NDA) for the invitations and opportunity to speak to these various groups.
A Silent Problem: Hearing Loss in Dentistry

According to the National Institute on Deafness and Other Communication Disorders (NIDCD), one of the institutes of the National Institutes of Health (NIH), 37.5 million American adults – 15% of the population – report trouble hearing. While the noises of dental handpieces, ultrasonic scalers, and other dental instruments hover in the 60-99 decibel range (according to the American Dental Association [ADA]) – by comparison, motorcycles and dirt bikes are in the 80-110 db range – noise-induced hearing loss can still occur due to long or repeated exposure to these noises.

A recent study published in the Journal of Occupational Health examined the hearing of 244 oral health professionals and concluded that, when compared to a control group, hearing impairment was much higher in dental staff, especially dental assistants and technicians. A similar study published in Quintessence International showed a positive correlation between years of experience and reduced hearing capacity among dental practitioners.

The ADA provides the following tips for preventing noise-induced hearing loss:

- When using dental equipment, wear ear plugs or noise-cancelling (over-the-ear) headphones. Read more about hearing protection devices from the ADA Professional Product Review.
- In selecting dental equipment, consider its noise level as a factor in your purchasing decision
- Have your hearing tested to establish a baseline of the status
- Monitor your hearing acuity on a regular basis to have any problems correctly diagnosed and to benefit from early intervention.

Public Health Consequences of E-Cigarettes: New NASEM Report

On January 23rd, the National Academies of Sciences, Engineering, and Medicine (NASEM) released a consensus study report entitled Public Health Consequences of E-Cigarettes. This report, the culmination of a collaboration between NASEM and the Food and Drug Administration’s Center for Tobacco Products, “provides an overview of the evidence, recommends ways to improve the research, and highlights the gaps that are priority focus areas for future work.” Here are some of the major conclusions from the report:

Constituents: “Overall, e-cigarette aerosol contains fewer numbers and lower levels of toxicants than smoke from combustible tobacco cigarettes. Nicotine exposure can mimic that found with use of combustible tobacco cigarettes, but it is highly variable. The exposure to nicotine and toxicants from the aerosolization of flavorings and humectants depends on device characteristics and how the device is used.”

Health Effects: “Overall, the evidence reviewed by the committee suggests that e-cigarettes are not without biological effects in humans. For instance, use of e-cigarettes results in dependence on the devices, though with apparently less risk and severity than that of combustible tobacco cigarettes. Yet the implications for long-term effects on morbidity and mortality are not yet clear.”

Harm Reduction: “Overall, the evidence suggests that while e-cigarettes might cause youth who use them to transition to use of combustible tobacco products, they might also increase adult cessation of combustible tobacco cigarettes. Across a range of studies and outcomes, e-cigarettes appear to pose less risk to an individual than combustible tobacco cigarettes.”

To read the entire report, including conclusions organized by levels of evidence and outcome, visit www.nationalacademies.org/eCigHealthEffects.
The 128th AMSUS Annual Meeting, with the theme of “Transforming Healthcare through Partnership and Innovation,” was held at the Gaylord National Resort & Convention Center in National Harbor, MD from December 2-6, 2019. On Dec. 3rd, the USPHS led and organized a special oral health track session for over 100 oral health professionals representing the USPHS, the U.S. military, retired officers, and even an international delegation of military officers from Germany. Throughout the meeting, 22 hours of continuing dental education (CDE) credits were approved for oral health professionals.

Presentations included: RADM Timothy L. Ricks, Assistant Surgeon General, USPHS Chief Dental Officer, who presented on Oral Health in America: A Forthcoming Surgeon General’s Report; COL (Ret., U.S. Army) Daniel Blum and CAPT (Ret., U.S. Navy) David Yoder, who both presented Through the Eye and Mouth: Under Appreciated Early Detectors of Disease; and Lt. Col. (Medical Corps) Martin Ulbrich, MD of the Federal Republic of Germany Army who presented The Importance of the Analysis of Teeth-Surfaces for Identification in Case of Mass Catastrophes.

Special purple pens – to signify the dental profession and military collaboration – marketing the oral health track session were designed and handed out to all AMSUS attendees. Special guest attendees included Brig. Gen. Shan K. Bagby, Chief of the U.S. Army Dental Corps; Maj. Gen. (Ret.) Roosevelt Allen, former Chief of the Air Force Dental Corps; RADM Ty Bingham, USPHS Chief Pharmacist Officer; CAPT Brian Lewis, USPHS Chief Medical Officer; CAPT John Eckert, USPHS Chief Scientist Officer; Col (Ret., U.S. Army) Jim Currie, Executive Director of the Commissioned Officers Association of the USPHS; and CAPT (Ret., USPHS) James Minor, Trustee in the Commissioned Officers Foundation.

The AMSUS oral health track session helped improve the visibility of the U.S. Public Health Service with our military counterparts. The 3 ½ hour oral health track session was the only track at the meeting to incorporate official speaker introductions. We were pleased to have RADM Ricks present AMSUS certificates plus award his USPHS Chief Dental Officer coin to all speakers, and for AMSUS Executive Leadership to attend the session. AMSUS Executive Leadership continues to use our oral health track session and the process to obtain dental specific CE hours as the model example for other groups to follow since 2016.

We would like to acknowledge and thank all of the oral health track session presenters, the aforementioned dignitaries who attended the session, and the following officers for their involvement in the planning and execution of the program: CDR Kevin Zimmerman, CDR Abby Shannon, CDR Paula Arango, LCDR Thuc Ngo, LT Vy Vy Vu.
DePAC Year in Review: 2019
By CDR Kevin Zimmerman, 2019 DePAC Chair, CDR Abby Shannon, 2020 Chair, and RADM Ricks, CDO

This past year was a productive year for the DePAC on many fronts. DePAC members focused efforts on five specific areas: broadening knowledge of members, recruitment, retention and continuing education, communications within the category, and collaborations with other categories. Below is a summary of major activities from the year.

Cultivating Leadership. Through the vision of our Chief Dental Officer (CDO), RADM Ricks, DePAC moved from an exclusive business meeting to a combined business and learning meeting. At each monthly meeting, leaders in public health presented on a variety of topics that impacted oral health of the Nation, and HHS agency dental representatives provided overviews of their agency or operating division. The goal of these presentations was to increase knowledge and awareness of DePAC members on key issues so they will grow as public health leaders in their careers.

Recruitment. As the Dental Category continued to decline due to the retirements of seasoned dental officers, and as dentist vacancies were felt throughout all of the agencies where USPHS dentists serve, DePAC stepped up recruitment efforts. Recruitment presentations were provided by DePAC members and RADM Ricks at 20 dental schools and residency programs using a new standard recruitment slide deck created by DePAC members, reaching over 2,500 prospects in the past year. Similarly, DePAC was able to staff a recruitment booth at the annual meeting of the American Dental Association (ADA) and the CDO was able to provide an overview of the USPHS to students attending the National Dental Association’s (NDA) Interprofessional Student Leaders Summit. In addition, DePAC sponsored a minority speaker series that provided a forum to recruit minority dentists and students, and DePAC partnered with the American Dental Education Association (ADEA) to provide a series of recruitment webinars to dental students. Finally, DePAC updated and shared a monthly dentist vacancy list with all USPHS dental officers, with agency dental leads, and in various digital student forums.

Retention. DePAC gathered statistical information to get a clearer picture of the state of the Dental Category. This included gathering information from all of the PHS agencies where dentists serve to better understand the impact of retirements on category strength. DePAC members were also responsible for coordinating the centennial anniversary of the Dental Category through creation of a centennial category coin, publication of the centennial booklet recapping the history of the category, and culminating with the celebrating of our centennial anniversary at the 2019 USPHS Scientific and Training Symposium Dental Category Day where we had an unprecedented eight former USPHS chief dental officers in attendance. The most significant retention effort, however, was with the creation of quarterly CDE webinars in collaboration with the PHS constituency of the Academy of
General Dentistry (AGD). Through these webinars and the Category Day, a total of 594.75 participant hours of CDE, with a total value of almost $90,000, was provided to USPHS dentists.

Communications. DePAC served as a conduit of information provided by the Office of Surgeon General (OSG), the CDO, and Commissioned Corps Headquarters (CCHQ). This included relevant information about the Health Professions Special Pay (HPSP). To continue to promote oral health with the CDO in preparation for the release of the second-ever Surgeon General’s Report on Oral Health (SGROH), DePAC created leadership briefing documents on topics such as community water fluoridation, the Minnesota dental therapy program, and silver diamine fluoride. These documents will be provided to agency dental leaders and USPHS leaders in the future. DePAC also streamlined written communications, and broadened its audience, by combining the Dental Category Newsletter with the Chief Dental Officer Newsletter. Finally, as one of the 27 charter groups under OSG, DePAC leadership met regularly with the Deputy Surgeon General to share accomplishments and seek guidance.

Collaborations. DePAC strived to forge new cross-category collaborations during the year. DePAC worked side by side with the Health Services Officer Category, Dental Hygienist Professional Advisory Group, on several projects including developing the oral health track of the annual Association of Military Surgeons of the U.S. (AMSUS) meeting in December, in developing oral health presentations for the Prevention through Active Community Engagement (PACE) initiative, and in meeting for the first time with the American Dental Hygienists Association to forge a partnership in promoting the SGROH. DePAC also worked collaboratively with the Pharmacy Category in multiple recruitment events at locations with pharmacy and dental schools.

As we move forward into 2020, DePAC members and leadership will continue to focus on recruitment, retention, communications, collaborations, and cultivating the leaders of tomorrow. We look forward to serving the USPHS Dental Category.

In Officio Salutis (In the Service of Health),
CDR Kevin Zimmerman, 2019 DePAC Chair

A Look Ahead: DePAC in 2020
By CDR Abby Shannon. 2020 DePAC Chair

Happy New Year! I am very excited for all the plans and goals the DePAC has slated in 2020. I expect this to be a year to GROW: growth of our category size, growth in communication and collaboration, growth of USPHS awareness, and growth in the sharing of the Surgeon General’s Report on Oral Health. The Recruitment Workgroup has a robust plan to work on increasing our numbers. But recruitment is every officers’ responsibility—consider visiting a dental school near you to promote our service. A presentation has already been created and is available online. If you are interested in becoming involved with DePAC, please email me at abby.j.shannon@uscg.mil; we are always happy to have more workgroup and subcommittee members.

In Officio Salutis (In the Service of Health),
CDR Abby Shannon, DDS, MPH, FICD
2020 DePAC Chair
New DePAC Member Profile: LCDR Ryan Gard

Lieutenant Commander Ryan Gard is a new addition to the DePAC team serving as the co-chair for the Recruitment Workgroup. He also serves as the DePAC Prevention through Active Community Engagement (PACE) representative. LCDR Gard was awarded the U.S. Air Force Health Professions Scholarship. After graduating from the University of Detroit Mercy Dental School in 2011, he served as a dental officer for four years at Luke Air Force in Arizona before transitioning into the U.S. Public Health Service. LCDR Gard furthered his education through completing the Advanced General Practice Residency at the Alaska Native Medical Center in Anchorage, Alaska. After finishing residency, LCDR Gard served as a dental officer at the Alaska Native Medical Center. LCDR Gard transferred to Immigration Health Service Corps in 2018 and serves as the Chief Dentist at his facility in Eloy, Arizona. Since his arrival at Eloy, he has remodeled the dental clinic to improve efficiency and support programmatic initiatives.

LCDR Gard successfully challenged the written examination of the American Board of General Dentistry and is currently Board Eligible. He also has met all requirements to become a fellow of the Academy of General Dentistry (AGD) and will receive his award at the 2020 AGD annual session. In his free time LCDR Gard enjoys skiing, camping, traveling and fishing.

Clinical Article: Tips for Successful Endodontic Access

By LCDR Emily Ikahihiho

About the Author: LCDR Ikahihiho attended Midwestern University in Glendale, AZ for dental school and completed her Endodontic Residency program at the VA Tibor Rubin Medical Center in Long Beach, CA. She is currently practicing at the Cherokee Nation Outpatient Health Center in Tahlequah, OK.

Introduction

“The objective of root canal treatment is thorough cleaning and shaping of all pulp canal spaces and complete obturation of these spaces with an inter filling material” (1). Access is the first and possibly the most important phase of non-surgical root canal treatment (1). Accessing teeth that need endodontic treatment can be somewhat difficult especially if the tooth has had trauma, if the canal has begun to calcify or if pulp stones are present in the pulp chamber. Traditional treatments include coronal flaring to gain “straight line access.” With modern technology “straight line access” is no longer required and an orifice directed access has been adopted to preserve peri-cervical dentin which has shown to be critical for tooth strength and enhancing long term restorative success (3). The objectives of a good endodontic access will:

- Preserve the tooth for restorability.
- Allow for clear visibility into all canals for cleaning, shaping and obturation.
- Remove all pulp tissue.
- Remove caries and failing restorations.

The outline of the root canal system corresponds most accurately to the external contour of the tooth (2). The article by Krasner and Rankow, “Anatomy of the Pulp-Chamber floor” (2004), is a great guide to follow when accessing teeth for endodontic treatment. They present some rules to keep in mind.

1. **Law of Centrality ①**: The floor of the pulp chamber is always located in the center of the tooth at the level of the CEJ.

2. **Law of Concentricity ②**: The walls of the pulp chamber are always concentric to the external surface of the tooth at the level of the CEJ.
3. **Law of the CEJ**: The CEJ is the most consistent, repeatable landmark for locating the position of the pulp chamber.

Endodontic Access Step-by-Step

1. Remove any and all defective restorations and caries.
2. On posterior tooth reduce the occlusion if the permanent restoration is to be replaced.
3. On the initial radiograph measure the distance of the pulp chamber (from the roof of the chamber to the floor); stay within these dimensions when accessing the chamber.
4. Directly under the cusp tips are the pulp horns, just slightly off towards the central pit of the tooth.
5. #2 or #4 round bur can be used to make an outline of the preparation of the access.
6. The initial penetration into the pulp chamber can be made toward the most prominent part of the chamber.
7. On average, in posterior teeth, a normal pulp chamber (teeth without excessive calcifications) would be entered in 4-6 mm from the tooth surface.
8. If the chamber has not been reached after 6mm of depth, the angle and direction must be re-assessed to avoid perforation.
9. Locate pulp horns with an endo explorer. IF you don’t have a rubber dam on, NOW is the time to put one on before going any further(1).
10. Once pulp horns are located “sweep away” the rest of the pulp chamber root to expose the rest of the chamber.
11. Locate the canal orifices with endodontic explorer.
12. The walls of the access can be smoothed with a long non-end cutting bur (examples: Endo-Z bur or LA Axxess bur).

**Non-End Cutting Burs**

**Conclusion**

Root canal treated teeth, where natural tooth structure is preserved, are stronger, more able to handle functional loads and are more resistant to fracture (3). Accessing teeth can be frightening, however, by following these tips one should have success and confidence with endodontic access. Whenever in doubt, stop and take a radiograph to reassess. The more teeth that are accessed the more confident the clinician will become at preserving tooth structure.

**References**

1. Berman, L. and Hargreaves, K. *Cohen’s Pathways of the Pulp* 10th ed. 2010
4. Davis, S. Lecture “General Concepts of Endodontic Access” 9/12/2016, VA Tibor Rubin Long Beach, CA
Federal minimum age to buy tobacco products raised from 18 to 21 years. On December 20, 2019 the President signed legislation to amend the Federal Food, Drug, and Cosmetic Act, and raise the federal minimum age of sale of tobacco products from 18 to 21 years. It is now illegal for a retailer to sell any tobacco product - including cigarettes, cigars, and e-cigarettes – to anyone under 21. To learn more about this new development, click here.

EVALI cases may have peaked. According to the CDC, the number of cases of e-cigarette, or vaping, product use-associated lung injury (EVALI) has been declining since a peak in September 2019. However, the levels have not declined to levels before the outbreak began in June 2019. As of January 14th, there have been over 2,500 EVALI hospitalizations and 60 deaths. As reported a couple of issues ago, Vitamin E acetate has been identified as a “chemical of concern” in this outbreak, and THC has been present in most of the samples that have been tested by the FDA. Recommendations from CDC remain the same:
(1) People should not use THC-containing e-cigarette, or vaping, products, particularly from informal sources like friends, family, or in-person or online dealers.
(2) People should not add any substances not intended by the manufacturer to products, including vitamin E acetate.
(3) Adults using e-cigarettes as an alternative to cigarettes should not return to smoking, but should seek the advice of their healthcare provider.
(4) E-cigarette, or vaping, products should never be used by youths, young adults, or women who are pregnant.
(5) Persons engaging in ongoing cannabis use that leads to significant impairment or distress should seek evidence-based treatment by a healthcare professional.

Marijuana vaping continues to rise among teens. Even though EVALI cases may be declining, there is still cause for alarm. On December 18, 2019, the National Institute on Drug Abuse (NIDA), one of the institutes of NIH, announced that vaping in teens continues to rise. The percentage of teens self-reporting vaping of marijuana more than doubled in the past two years, with 20.8% of 12th graders, 19.4% of 10th graders, and 7.0% of 8th graders reporting this behavior. The jump among the percentage of 12th graders reporting marijuana vaping – from 7.5% in 2018 to 14.0% in 2019 – was the second largest one-year jump ever tracked for any substance in the history of the 45 year-old survey. The largest increase, incidentally, occurred from 2017 to 2018 and resulted in a Surgeon General’s Advisory on E-Cigarettes. The good news from the NIDA survey is that illicit drug use other than marijuana continues to remain low, and the misuse of prescription medicines, alcohol, and tobacco cigarettes continues to decline among teens. Nevertheless, oral health professionals can and should continue to question their teen patients about e-cigarette and marijuana use and advise them of the dangers of marijuana vaping. To learn more about the effects of marijuana use on the developing adolescent brain, read the Surgeon General’s Advisory on the subject.

ADA approves new policy on vaping. On December 16, 2019, the American Dental Association (ADA) – the largest dental organization in the U.S. with over 163,000 members – announced a new interim policy on vaping. The policy, which mirrors recent action taken by the American Medical Association (AMA), calls for a total ban on vaping products that aren’t approved by the Food and Drug Administration (FDA) for tobacco cessation purposes.
Dental Quality Alliance (DQA) releases new measures. The DQA, whose mission it is “to advance performance measurement as a means to improve oral health, patient care, and safety through a consensus-building process,” has released new measures addressing sealants in children. The two measures – sealant receipt on permanent first molars and sealant receipt on permanent second molars – join a growing list of measures that oral health professionals and medical colleagues can use to improve the delivery and quality of care to patients. The DQA consists of 28 individual organizations or organizational components. For a complete listing of member organizations, for a listing of all of the different adult and pediatric measures, or to learn how you can use the DQA measures in your dental practice to improve care, click here. One other interesting note, since the article was referenced in the DQA sealant measures: dental sealants are indicated for both primary and permanent molar sealants. Many dentists still are applying sealants only on permanent molars, but both the ADA and American Academy of Pediatric Dentistry (AAPD) support sealants in primary molars.

Update on dental amalgam. As I mentioned in recent past newsletter issues, the Minimata Convention on Mercury held its third Conference of the Parties (COP3) in Geneva in late November 2019. There has been ongoing debate about the complete and rapid ban of dental amalgam – a “phase out” – versus a slower, more gradual approach in removing mercury-containing dental amalgam from dentistry – the “phase down” approach. At the COP3, delegates rejected a proposal to phase out dental amalgam use in certain groups such as children under 15 years of age and pregnant and breastfeeding women. But at the same time, delegates agreed to accelerate the phase down of amalgam, and according to the FDI World Dental Foundation, this sets the stage for dental amalgam to be featured on the agenda for fourth Conference of the Parties meeting to be held in Bali, Indonesia in late 2021. There are currently nine measures that are part of the phase down on the use of dental amalgam, and these are listed in “Annex A, Part II” of the Minimata Convention. To learn more about these nine measures, and to get a better understanding of the phase down approach in general, click here to read a perspective from the World Health Organization (WHO). To learn more about the Minimata Convention on Mercury in general, click here.

Deadline on amalgam separators is July 2020. As initially announced in a Federal Register Notice on June 14, 2017, a final rule by the U.S. Environmental Protection Agency (EPA) requires that dental offices use amalgam separators to capture mercury-laden waste and prevent its release into the environment. The EPA expects that this final rule will reduce the discharge of mercury by 5.1 tons as well as 5.3 tons of other metals found in waste dental amalgam to publicly owned treatment works. This final rule affects over 100,000 dental offices in the country, and the deadline for complying with the rule is July 14, 2020. To learn more about this topic, including the background, frequently asked questions, and more, click here. It is important to note that the EPA rule says that dentists do not need an amalgam separator for every chair, but only for those operatories where you use amalgam. However, some states may require separators for each operatory, so check with your state for more information. The EPA estimates that installation and maintenance of amalgam separators will cost dental offices only about $800 per year for separator, including maintenance.
**News Bites**

**Influenza activity is increasing.** Seasonal influenza activity in the U.S. is high and continues to increase, according to recent data from the CDC. While the hospitalization rate of 19.9 per 100,000 people is similar to past years, and the percentage of deaths is below the epidemic threshold, there have been millions affected. According to the CDC, there have been at least 13 million flu illnesses, 120,000 hospitalizations, and 6,600 deaths from flu this season, with almost 40 of those deaths in pediatric patients. Antiviral medications are an important adjunct to control the complications of flu and almost all (>99%) of influenza viruses tested this season are susceptible to the four FDA-approved recommended influenza antiviral medications. It is also still not too late to get vaccinated this year, so please encourage your friends, families, and patients to get the flu vaccine!

**The incidence of oral cancer has more than doubled in the past three decades.** A recent study published in the *Journal of Dental Research* reports that the global incidence of lip and oral cavity cancers has increased dramatically over the past 27 years, from 186.0 cases per 100,000 people in 1990 to 389.8 cases per 100,000 in 2017, an increase of 110%. These increases were seen in both men and women, across all age groups, and across different sociodemographic groups, but the largest increases were seen in women, those in younger age groups, and people in low/middle-income areas. North America had the third highest incidence of lip and oral cavity cancers among men, trailing only South Asia and Eastern Europe, and the fifth highest incidence of lip and oral cavity cancers among women, behind South Asia, Southeast Asia, Oceania, and Australasia.

**Incidence of oropharyngeal cancer rises among middle-aged U.S. men.** A study published earlier in 2019 in *Head & Neck*, the journal of the sciences and specialties of the head and neck, projected the oropharyngeal cancer (OPC) rates using the Surveillance, Epidemiology, and End Results (SEER) database. Researchers reported that the incidence of OCPS in the U.S. increased by 1.94% per year from 2000 to 2015. Furthermore, they projected that more than half of projected new OPC cases in the next 30 years will be in non-Hispanic white men aged 55-69 years, and that by 2045 OPC will become the third most common cancer in this demographic.

**HPV vaccination rates increase.** A new data brief published by the National Center for Health Statistics (NCHS) shows that the percentage of adults aged 18 to 26 years who ever received one or more doses of HPV vaccine nearly doubled between 2013 and 2018, from 22.1% to 39.9%. Hispanic American men and women had the lowest rates at 48.8% in women and 24.7% in men. As mentioned in previous newsletters, oral health professionals can play a key role in educating patients about HPV in relation to oral cancer and HPV vaccination. To learn more, or to download a dental “toolkit” on HPV vaccinations, click [here](#).

**U.S. Cancer Statistics data brief highlights increase in HPV-attributed oropharyngeal cancer.** An August data brief from U.S. Cancer Statistics, the official federal cancer statistics, published on the CDC website highlights the increases in HPV-attributed oropharyngeal cancers. Based on data from 2012 to 2016, about 44,000 new cases of HPV-associated cancers occurred in the U.S. each year, including about 24,900 among women and about 19,100 among men. The incidence rate (number of cases per 100,000 persons, age-adjusted) differed by race/ethnic group as well, with white men and women having the highest rates. Cervical cancer remains the most common HPV-associated cancer among women, with an incidence rate of 7.2, while oropharyngeal cancer is the most common among men, with an incidence rate of 8. HPV-positive oropharyngeal cancers have increased dramatically over the past few decades; a study published in 2011 showed a 225% increase in HPV-attributed oropharyngeal cancers from 1988 to 2004, for example.
News Bites

Commissioned Corps Headquarters announces new Learning Management System. On December 29th Commissioned Corps Headquarters (CCCHQ) announced the rollout of a new Commissioned Corps Learning Management System to all Commissioned Corps officers. This learning portal provides training on a variety of subjects including readiness, retirement, officer development, and recruitment. To learn more, click on the above hyperlink or refer to the December 29th e-mail from CCHQ. This learning system is only available for USPHS Commissioned Corps officers.

NIDCR director position closes February 20th. With the recent retirement of Dr. Martha Somerman as director of the National Institute of Dental and Craniofacial Research (NIDCR), one of the 27 institutes of the National Institutes of Health (NIH) in Bethesda, Maryland, NIDCR has now posted the director position. Applications are being accepted until February 20, 2020. Click here to learn more.

Study says that better oral health will help improve general health in the geriatric population. A study published in mid-2019 in the journal Special Care in Dentistry provided “strong empirical evidence that oral health is directly associated with different disease conditions and contributes largely to an individual’s general health, particularly in the elderly.” Using data from the National Health and Nutrition Examination Survey (NHANES), researchers looked at the relationship between oral health status and systemic diseases. Click on this summary article to read more about the study.

Health rankings include some oral health indicators. The 2019 America’s Health Rankings Annual Report, produced for the past 30 years, provides a snapshot of the nation’s health on a state-by-state basis. What you might not know, however, is that the reports – not just the overall annual report, but also a senior report and a health of women and children report – use dental visits as one of the measures to assess overall health status of states. To learn more, click the above links.

Dentists rank near the top in the 100 best jobs. According to a January article in U.S. News and World Reports, “dentist” ranks as the second best job in the U.S., behind only software developer. The rankings were based on unemployment rates in the profession (0.9% for dentists), work-life balance, growth, and other factors. Other dental jobs also ranked high, including orthodontist at #4, oral and maxillofacial surgeon at #9, dental hygienist at #24, prosthodontist at #56, and dental assistant at #66.

Dental student debt rises. According to a 2018 survey conducted by the American Dental Education Association (ADEA), the average debt per graduating senior was $285,184. For the Class of 2019, however, ADEA reports that the average indebtedness for dental school graduates was $292,169, a 2.5% increase. The majority of graduates – 64% - reported indebtedness exceeding $200,000. Dental school student debt has increased tremendously over the past two decades, from $129,927 in 1996 to $194,164 in 2006 to $262,119 in 2016 to its current level. Dental student loan repayment is available in USPHS agencies through the National Health Service Corps Loan Repayment Program managed by the Health Resources and Services Administration (HRSA) and the Indian Health Service (IHS) Loan Repayment Program.

Treatment of periodontal disease reduces diabetes complications, new study shows. A new study published in Diabetes Care, using a cost-effectiveness model, showed that providing nonsurgical periodontal treatment to patients with Type 2 diabetes mellitus and periodontitis can not only reduce tooth loss, but also can lead to reduce microvascular diseases via improved glycemic control. Using 2009-2014 NHANES data, researchers showed that expanding periodontal treatment coverage among patients with type 2 diabetes mellitus reduces by up to 20% nephropathy, neuropathy, and retinopathy, and may result in a net cost savings of almost $6,000 in health care costs.
Upcoming Deadlines & Events of Interest

Listing of events and organizational information does not, and should not, imply endorsement of these events or organizations. If you know of other events which should be listed, please let me know.

February 2020 – National Children’s Dental Health Month (NCDHM). The origins of NCDHM began in Cleveland, Ohio on February 3, 1941. First observed as Children’s Dental Health Day on February 8, 1949, in 1981 it was extended to a month-long observance. This year’s campaign slogan, which commemorates the 75th anniversary of community water fluoridation, is “Fluoride in water prevents cavities! Get it from the tap!” Tips on creating your own press release, sample newspaper articles, activity sheets for your pediatric patients, NCDHM posters and flyers are all available by going here.

February 7, 2020 – Give Kids A Smile (GKAS) Day. Begun in 2003, GKAS was launched nationally by the American Dental Association and over the past 16 years more than 5.5 million underserved children have received free oral health services. This year, almost 60,000 dentists and other volunteers have already signed up in 1,329 events around the country. While GKAS “Day” is February 7th, GKAS Day is celebrated throughout the year and especially during National Children’s Dental Health Month. To learn more about GKAS Day, click here.

February 20-22, 2020 – Chicago Dental Society Midwinter Meeting, Chicago, Illinois. The 155th midwinter meeting will consist of more than 250 courses. To learn more or to register, click here.

February 28-29, 2020 – National Mobile Dentistry Conference, Orlando, Florida. Registration for the first annual National Mobile Dentistry Conference taking place on February 28-29 in Orlando is now open! Please note that attendee space is limited. To learn more, click here.

March 14-17, 2020 – American Dental Education Association (ADEA) Annual Session & Exhibition, National Harbor, Maryland. The 2020 ADEA annual meeting offers more than 120 sessions tailored to dental educators’ needs at the luxurious Gaylord National Harbor. To learn more or to register for this meeting, click here.

March 18-21, 2020 – International Association for Dental Research General Session & Exhibition, Washington, DC. The International Association for Dental Research (IADR) proudly celebrates its Centennial in 2020! At the 98th General Session & Exhibition of the IADR, held in conjunction with the 49th Annual Meeting of the American Association for Dental Research and the 44th Annual Meeting of the Canadian Association for Dental Research, IADR will honor the historic advancements and scientific discoveries that provide the foundation for tomorrow’s science and highlight the accomplishments of the greatest contributors to dental, oral and craniofacial research worldwide. For more information, click here.

April 6-8, 2020 – National Oral Health Conference, San Diego, California. Co-sponsored by the American Association of Public Health Dentistry and the Association of State and Territorial Dental Directors, this meeting will be held at the San Diego Sheraton Hotel & Marina, with weekend workshops April 4-5. For more information, click here. The no-cost Federal Dental Services (FDS) Session will be held 12:30-4:30 p.m. on Sunday, April 5, and all retired or active uniformed services or public health dentists are invited to participate.

April 20-22, 2020 – Beyond Flexner Conference, Phoenix, Arizona. Beyond Flexner 2020 is the conference of the Beyond Flexner Alliance, a national movement, focused on social mission in health professions education, including dentists, doctors, nurses, behavioral health and others. This movement takes us beyond centuries-old conventions in health professions education to train providers prepared to build a system that is not only better, but fairer. The broad themes of social mission include social determinants of health, community engagement, disparity reduction, diversity promotion and value-based health care. To learn more, click here.
Index of Major Topics from Past Issues

Below is a list of major topics discussed in past issues of the newsletter. If you find a topic of interest and would like to receive a back issue, just let me know.

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Next Issue

I likely will not publish the next issue of the USPHS Chief Dental Officer Newsletter until mid- to late March 2020. Thanks to readers for suggestions on topics – please keep them coming! Thanks to all of you for your continued support!

Rear Admiral Tim Ricks, USPHS Chief Dental Officer

*In Officio Salutis* ("In the Service of Health")