

DELTA DELTA SIGMA

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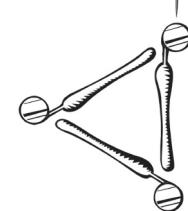
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WHY HASN'T DENTAL CARE IMPROVED FOR ALL U.S. POPULATIONS?



IN FOCUS: ALASKA NATIVES & THE DENTAL THERAPISTS.

ALSO INSIDE:

DECOD Explained, Dentistry In The News, DAT Breakdown, Traditional Loan Pay-back Alternatives for Dentists, Web Review, & Fun Page!

DECOD

Dental Education in Care of Persons with Disabilities



Esther Ra
President

UNIVERSITY OF WASHINGTON
SCHOOL OF DENTISTRY

SPECIAL POINTS OF INTEREST:

- DECOD was established in 1974 to train dental professionals for special needs of persons with disability. (1)
- DECOD provides more than 3,500 dental visits per year to persons with disabilities. (1)
- DECOD's goals include treatment, prevention, and rehabilitation. (1)

SERVING SPECIAL NEEDS PATIENTS

The U.S. surgeon general's report "Oral Health in America," notes "profound" health disparities mainly among those "without the knowledge and resources to achieve good oral care." (4) People with disabilities have an overwhelmingly difficult time finding proper dental health care.

DECOD serves patients from all age groups. Approximately 70 percent have severe developmental disabilities such as mental retardation and cerebral palsy. (1) The remaining 30 percent have acquired disabilities such as spinal cord and brain injury as well as multiple sclerosis. (1)

The majority of patients are on medical assistance. (1) They often require extra treatment

time because of their special needs. Sedation is needed even for minor procedures.

Because people with disabilities frequently have serious dental problems and have difficulty accessing dental care, there is an increased demand for improved access to dental care for these individuals. This challenge has increased the importance of the UW dental school's special needs clinic.

In addition to its primary site at the dental school, DECOD operates in various locations throughout the state. In conjunction with Northwest Medical Teams International, DECOD has established a public-private partnership to service the mentally challenged in Walla Walla, Clarkston, Centralia, and Mt.

Vernon Washington.

Dentistry for people with special needs is a personally rewarding experience that tests the creativity and resourcefulness of the clinician. (5)

As dentistry evolves as one of the most diverse and respected professions, there comes a critical need to alleviate health disparities among the different populations. Access to basic health care at reasonable costs has become a topic of imminent importance. As future dentists and dental professionals, we must train ourselves to be service oriented, attune to the needs of the less fortunate. After all, we deal with people first, not mouths.

DISABILITY STATISTICS

- 31.7 million adults have a physical functioning disability. (2)
- 34.2 million adults have limitations in usual activities due to a chronic illness. (2)
- 15 million adults are unable to walk a quarter mile. (2)
- Over 50,000 people have multiple sclerosis in WA. (3)

"Of all the forms of inequality, injustice in health is the most shocking and the most inhuman."
-Rev. Martin Luther King, at the Second National Convention of the Medical Committee for Human Rights, Chicago, March 25, 1966-

Happy Family

The DECOD crew takes a break for a family photo.



Back: Allan Trinidad
Middle: L-R : Mae Chin, Dr. Glenn Govin, Juana Rashid, and Cheryl Serquinia
Front: Masako Matsunaga

1.) DECOD: Dental Education in the Care of Persons with Disabilities (n.d.) Retrieved November 5, 2006, from <http://www.dental.washington.edu/departments/oralmed/decod/>

2.) Disabilities/Limitations. (n.d.) Retrieved November 5, 2006 from <http://www.cdc.gov/nchs/fastats/disable.htm>

3.) Mswalk. (n.d.) Retrieved November 4, 2006, from http://main.nationalmsociety.org/site/PageServer?pagename=WLK_WAS_homepage

4.) Satcher, D. (2000). Oral Health in America: A Report of the Surgeon General (Executive Summary). Retrieved November 1, 2006, from <http://www.nidcr.nih.gov/AboutNIDCR/SurgeonGeneral/ExecutiveSummary.htm>

5.) The ADPD's Mission. (n.d.) Retrieved November 5, 2006, from <http://www.scdonline.org/displaycommon.cfm?an=8>

DENTISTRY IN THE NEWS



Although not many people seem to realize this, dental topics keep popping up in our daily news and make headlines worldwide. In order to highlight this global and dynamic feature of dentistry and to keep you up-to-date on dental news, we have put together a list of recent dentistry headlines for you!

Here is a combination of fun facts, information about dental research findings, new developments in oral health technology and other issues:

- **"Dental Clinic For People Living With HIV/AIDS Opens In Uganda"**
(medicalnewstoday.com 10/25/06)
- **"Case dental school offers discounted orthodontic work for qualified children who need braces"** (<http://blog.case.edu/case-news/2006/10/24/braces> 10/24/06)

"Australia looks to New Zealand dentists to help fill gap" (The New Zealand Herald 10/24/06)

According to the Australian newspaper, about 215,000 people are on the public dental waiting list in New South Wales. Because of its shortage of public dentists, Australia is now looking to New Zealand to plug the holes in its dental system and is initiating a campaign to hire 30 dentists from Britain, Ireland and New Zealand.

"Thieves discover dentists' tombs in Egypt" (Worldnews.com 10/23/06)

Grave robbers in Egypt have unwittingly helped archaeologists discover the tombs of three royal dentists, protected by a curse and hidden in the desert at Egypt's Saqqara pyramids. The tombs date back more than 4,000 years and were meant to honor a chief dentist and two others who treated the pharaohs and their families. This proves that ancient Egyptian royalties already cared a lot about their oral health!

"New pill to fight gum disease" (BBC News 10/21/06)

Researchers at State University of New Jersey have developed a tiny plastic pill that they say can prevent tooth loss by treating gum disease. The pill sits between the threatened tooth and the diseased gum and releases drugs to relieve pain and swelling and fight plaque-causing bacteria. The new polymer or "plastic" material also serves as a barrier, enabling the damaged gum and bone to not only heal but regenerate.

"ADA Applauds Health Claim for Fluoridated Bottled Water" (ADA.org 10/20/06)

The American Dental Association (ADA) supports the Food and Drug Administration's (FDA) decision to allow makers of bottled water to claim cavity prevention among the benefits of the added fluoride.

"New Coating Shows Promise Of Inhibiting Plaque And Calculus Around Braces" (sciencedaily.com 09/17/06)

Early tests on a new coating for orthodontic brackets and wires developed by NYU College of Dentistry researchers suggest that it could inhibit plaque growth and decalcification common in patients wearing fixed appliances without decreasing the bond strength between brackets and teeth.

"Immune Cells Can Be A Primary Cause Of Bone Loss In Gum Disease" (medicalnewstoday.com 08/30/06)

Researchers at The Forsyth Institute have confirmed in human gingival tissue that immune cells play a destructive role in periodontal disease. B cells (B and T lymphocytes are immune cells) can contribute to increased periodontal bone loss coordinating with activated T-cells. This not only gives a new understanding of periodontal disease, but also raises new interesting questions about immune cells.

"'Friendly bacteria' gum for teeth" (BBC News 08/20/06)

The gum is one of several products being developed by German chemical company BASF and is said to contain chewing gum containing friendly bacteria which can help prevent tooth decay. BASF is using a new strain of Lactobacillus called L. anti-caries, which binds to Streptococcus mutans, the bacteria responsible for tooth decay. The friendly bugs in the gum will make the S. Mutans clump together, preventing them from becoming attached to the tooth surface.

"Cranberries Contain Possible Anti-caries/anti-plaque Agents" (sciedaily.com 06/29/06)

Scientists have discovered that the humble cranberry harbors several anti-oxidants (flavonoids) that show the ability to counteract the damaging effects of the bacterium Streptococcus mutans, which causes dental caries (tooth decay).

"Ultrasound May Help Regrow Teeth" (sciedaily.com 06/28/06)

A team of University of Alberta researchers has created technology to regrow teeth—the first time scientists have been able to reform human dental tissue. They have created a miniaturized system-on-a-chip that offers a non-invasive and novel way to stimulate jaw growth and dental tissue healing.

"Designer milk to protect against tooth decay" ([The New Zealand Herald](http://thenewzealandherald.com) 06/26/06)

Agricultural researchers are immunizing cows against human illnesses so they will produce milk with enhanced protective qualities for the people who drink it. Otago's School of Dentistry is assessing the potential to use a special milk to protect teeth against decay-causing bacteria by boosting the IgA antibodies in milk - an important immunoglobulin for protecting infants against diseases.

"Grapefruit 'may cut gum disease" (BBC News 12/25/05)

Eating grapefruit could help fight gum disease. Researchers found people with gum disease who ate two grapefruit a day for two weeks showed significantly less bleeding from the gums.

"Sun exposure is good for your teeth - Effect of vitamin D and calcium on periodontitis" (pharmalexicon.com 09/22/05)

Numerous studies indicate that vitamin D and calcium deficiencies result in bone loss and increased inflammation. Inflammation is a well recognized symptom of periodontal diseases, which is why it has been suggested that calcium and vitamin D deficiency may be a risk factor for periodontal diseases. Research shows that the best means of obtaining the required amount of vitamin D is from sunshine.

DAT BASICS & SUGGESTIONS

Hello Pre-Dental Students,



As you probably already know, the Dental Admissions Test, DAT, is required for application to dental schools in the United States. As obvious as it seems, the higher your score, the higher your chances of getting into the dental school of your choice; it should also be emphasized that the longer you prepare for the test, the more likely the chances of you performing better. Therefore, my advice to you is this: start studying/preparing early.

If you are planning to apply to dental school during the 2008 application cycle, I would advise starting to prepare now. Borrow or purchase a DAT preparation book, e.g. Kaplan, Barron's. If you are inclined, take a prep course. Find out what your strengths and weaknesses are on the test.

The format of the test and the content of the DAT are as follows:

Survey of Natural Sciences	90 Minutes
Perceptual Ability Test	60 Minutes
Break (Optional)	15 Minutes
Reading Comprehension Test	60 Minutes
Quantitative Reasoning Test	45 Minutes

Part I—Survey of the Natural Sciences

Biology:

Cell and Molecular Biology—origin of life; cell metabolism (including photosynthesis) enzymology; cellular processes: thermodynamics; organelle structure and function; mitosis/meiosis; cell structure; experimental cell biology

Diversity of Life: Biological Organization and Relationship of Major Taxa (monera, plantae, animalia, protista, fungi, etc.) using the five kingdom system

Vertebrate Anatomy and Physiology: Structure and Function of Systems—integumentary, skeletal, muscular, circulatory, immunological, digestive, respiratory, urinary, nervous/senses, endocrine, and reproductive

Developmental Biology—fertilization, descriptive embryology, developmental mechanisms; experimental embryology

Genetics—molecular genetics, human genetics, classical genetics, chromosomal genetics, genetic technology

Evolution, Ecology, and Behavior—natural selection, population genetics/speciation, cladistics, population and community ecology, ecosystems, animal behavior (including social behavior)

General Chemistry:

Stoichiometry and General Concepts—percent composition, empirical formulae, balancing equations, moles and molecular formulas, molar mass, density, and calculations from balanced equations

Gases—kinetic molecular theory of gases, Dalton's, Boyle's, Charles', and ideal gas laws

Liquids and Solids—intermolecular forces, phase changes, vapor pressure, structures, polarity, and properties

Solutions—polarity, properties (colligative, non-colligative), forces, and concentration calculations

Acids and Bases—pH, strength, Bronsted-Lowry reactions, and calculations

Chemical Equilibria—molecular, acid/base, precipitation, calculations, and Le Chatelier's principle

Thermodynamics and Thermochemistry—laws of thermodynamics, Hess' law, spontaneity, enthalpies and entropies, and heat transfer

Chemical Kinetics—rate laws, activation energy, and half life

Oxidation-Reduction Reactions—balancing equations, determination of oxidation numbers, electrochemical calculations, and electrochemical concepts and terminology

Atomic and Molecular Structure—electron configuration, orbital types, Lewis-Dot diagrams, atomic theory, quantum theory, molecular geometry, bond types, and sub-atomic particles

Periodic Properties—representative elements, transition elements, periodic trends, and descriptive chemistry

Nuclear Reactions—balancing equations, binding energy, decay processes, particles, and terminology

Laboratory—basic techniques, equipment, error analysis, safety, and data analysis.

Organic Chemistry:

Mechanisms (Energetics, Structure, and Stability of Intermediates)—SN1, SN2, elimination, addition, free radical, and substitution mechanisms

Chemical and Physical Properties of Molecules and Organic Analysis—inter and intra molecular forces, separation, introductory infrared spectroscopy, ^1H NMR spectroscopy, ^{13}C NMR, chemical identification, stability, solubility, and polarity

Stereochemistry—conformational analysis, geometric isomers, stereoisomers (enantiomers, diastereomers, meso compounds), optical activity (planes of symmetry)

Nomenclature—IUPAC rules and functional groups in molecules

Individual Reactions of the Major Functional Groups and Combinations of Reactions to Synthesize Compounds—carbon-to-carbon bond formation, functional groups conversions, multistep synthesis, redox reactions, name reactions, Grignard, Wittig, Diels-Adler, Aldol reaction

Acid Base Chemistry—resonance effects, inductive effects, and prediction of products and equilibria

Aromatics and Bonding—concept of aromaticity, resonance, atomic/molecular orbitals, hybridization, bond angles/lengths.

Part II—Perceptual Ability

Angle discrimination, form development cubes, orthographic projections, apertures, and paper folding.

Part III—Reading Comprehension

Ability to read, organize, analyze, and remember new information in dental and basic sciences. Ability to comprehend thoroughly when studying scientific information. Reading materials are typical of materials encountered in the first year of dental school and require no prior knowledge of the topic other than a basic undergraduate preparation in science. The Reading Comprehension Test contains three reading passages.

Part IV—Quantitative Reasoning

Mathematical Problems: Algebra - equations and expressions, inequalities, exponential notation, absolute value, ratios and proportions, and graphical analysis; Numerical calculations - fractions and decimals, percentages, approximations and scientific notation; Conversions - temperature, time, weight, and distance; Probability and Statistics; Geometry; Trigonometry, and Applied Mathematics (Word) Problems.

By preparing now, you will have ample time to improve on your weaknesses and likely even your strengths. You will likely realize that the biology section of the Natural Sciences covers a ton of topics, some of which may not have been covered in the general biology series. It will take time to learn some of the topics, and the sooner and the longer you prepare, the better you will do. The chemistry and organic sections of the DAT are fairly straight forward, in my opinion. By knowing the listed topics, almost all of which will have been covered during the general chemistry and organic chemistry series, you will be very well prepared. The Perceptual Ability Test is a difficult section on the DAT, again in my opinion. Based on feedback from other students, Mechanical Engineering 123 (M E 123, Introduction to Visualization and Computer-Aided Design) is a good course to help improve your PAT. The reading comprehension section focuses on passages involving dentistry and basic sciences. I find that a good way to prepare is reading scientific journals. Being able to read science papers is a great tool and will make the reading comprehension section much easier. Furthermore, there is a chance that topics you read may be similar to topics found in passages on the DAT. Finally, the quantitative reasoning section is very similar to the SAT math section that we all took to get into college. Similarly, you will also face the time pressure of finishing 40 questions in 45 minutes. Be prepared to work quickly but more importantly, accurately.

As someone who has already taken my DAT, I wish I could have started studying sooner. I definitely feel that I could have achieved higher scores in certain sections with more preparation. I think the best time to take the exam is after spring break. Start studying now, section by section. Use spring break as an opportunity to do one final review, on all the sections. In your preparation for the DAT, borrow or purchase practice exams. PRACTICE PRACTICE PRACTICE. Taking individual exams and full lengths exams will allow you to get a feel for the real test. They are a must for scoring well on the DAT.

In closing, I would like to emphasize the importance of studying early. Know your weaknesses and improve on them. Take lots of practice tests, seriously. I wish you the best of luck on the Dental Admissions Test and hope my advices will be helpful to you.

Sincerely,

David Zhu
Vice President

MIKE'S GUIDE TO (PRE) DENTISTRY ON THE WEB.



www.adea.org

The ADEA, or American Dental Education Association, includes as its members all dental schools in the U.S. and Canada. The most useful part of their website is the Dental Schools page, which has a link to every school's website. The quality and depth of the official websites vary from impressive to mediocre, but these sites should be your first stop to find background information and statistics on the dental schools you are interested in. An essential resource for choosing dental schools, the annually updated ADEA Official Guide to Dental Schools, can be purchased from this website.

Rating: 3/5

<https://aadsas.adea.org/>

The ADEA is also the organization that sponsors the Associated American Dental Schools Application Service, or AADSAS. AADSAS is the online "common application" that you must use to apply to almost all schools in the U.S. In addition to actually filling out and submitting the AADSAS through this site, you can find a wealth of details regarding the logistics of the application process here. As will become obvious after browsing this site for a few minutes, the AADSAS will take a significant amount of time to complete – so start early.

Rating: 3/5

<http://www.ada.org/>

The American Dental Association (ADA) is the professional organization for dentistry. They are responsible for conducting the Dental Aptitude Test (DAT) required to apply to dental schools. Under the Dental Professionals tab, you can find lots of information on and register for the DAT. Also under this tab are hundreds of news stories and general articles about every issue facing dentists today, from "Meth Mouth" to practice management to cutting edge research. This is a great resource for all Pre-Dents – if you want to show an application committee you're serious about becoming a dentist, you must have a handle on current events in the field and this website is the best way to stay up to date.

Rating: 4/5

<http://www.asdanet.org/>

If you're not already having a hard time getting the abbreviations straight, welcome to ASDA, the American Student Dental Association. This group is run by students and is committed to supporting its members and bettering the educational experience of all future dentists. This website doesn't have a lot of content for non-members, but you can apply online to be a Pre-Dental member for \$50 per year which will get you subscriptions to the group's quarterly publications, a copy of their pre-dental handbook, and other benefits and discounts.

Rating: 3/5

www.studentdoctor.net

If you aren't on this site, you're putting yourself at a huge disadvantage. The Student Doctor Network contains "The largest pre-health and health-student forums on the Internet." The dental forums are extremely helpful and the amount of information you can find on this website is mind-boggling. While the above websites are great for basic reading, only this site takes full advantage of the internet, creating an interactive community of thousands of students helping each other achieve the goal of becoming a doctor. In addition to the forums, there is a student wiki (peer-edited encyclopedia), and a truly awesome Dental School Interview Feedback feature. Select any dental school from the menu, and you can read accounts of admissions interviews – for some schools, over two hundred students have posted feedback on their interviews there. I can't say enough about the SDN, it's an essential tool for meeting your goal of becoming a dentist.

Rating: 5/5

www.preidents.com

Although it doesn't seem to have the huge user base of SDN, this website is based on the cool idea of bringing large amounts of pre-dent submitted info and making it useful to other pre-dents. It works like this: students create a profile, listing all the relevant stats they are comfortable sharing, such as GPA, DAT scores, state of residence, and volunteer experience. As they go through the admissions process, they periodically update their profile with what schools they applied to, where they interviewed, where they were accepted or rejected, and which school they choose to attend. The site then organizes the information by school so you can get a really good idea of what each school's ideal applicant looks like.

Rating: 4/5

The above resources will help you become very well prepared to get into the dental school that's right for you. However, no amount of reading can substitute for person to person interaction, so don't hesitate to contact a dental school's admissions office by phone, or stop by if you're in the area. Furthermore, the best way to tell if a school is a good fit for you is to visit the campus in person and hang out with current students – an experience which no website is able to provide.

For even more dental links, check out the UW Delta Delta Sigma website at www.students.washington.edu/dental



ALTERNATIVE OPTIONS FOR PAYING FOR DENTAL SCHOOL



While financial loans are an almost inevitable aspect of any students' college experience, affording a professional education such as Dentistry is not an easy task. While there are numerous scholarships available for entering first year students, it doesn't hurt to think about alternative ways for paying for school. The following programs allow for graduating students to not only pay back their loans, but also to experience something outside of traditional dentistry.

Health Professionals Scholarship Program

AFHPSP stands for Armed Forces Health Professions Scholarship Program. It is offered through the Air Force, Army, and Navy. This is a four-year scholarship in which the Armed Forces will pay for your dental school tuition and expenses. In addition, they give you a monthly stipend for ten and a half months of living expenses (now over \$1,000/month). Your active duty obligation is generally to spend one year for each year you received the HPSP scholarship. An interesting bonus is that you are positioned as an officer; for the Army, a Second Lieutenant in the Army Reserves.
<http://www.goarmy.com/amedd/docs/hpsc.pdf>

Indian Health Service

The national Indian Health Service Loan Repayment Program repays all, or a portion of, your health professional educational loans. You can apply during your fourth year of dental school and the program entails an initial two year commitment at a specific site being rewarded \$48,000. Great opportunity for those interested in practicing within underserved communities.
<http://www.ihs.gov/>

National Institute of Health

They award up to \$35,000 per year of your repayable educational debt. You spend an allotted time conducting research with Health Disparities, Pediatrics, or other focuses.
<http://www.lrp.nih.gov/>

The Public Health Service

PHS recruits, trains, and places dentists in the National Health Service Corps, the US Coast Guard, and the Federal Bureau of Prisons.
<http://www.usphs.gov/html/srcostep.html>

However you decide to pay for dental school, it will be a lasting investment! The above allow for graduates to participate in very unique service experiences.



SOPHIE
HAMBERG

THE CURRENT DENTAL CARE SITUATION FOR ALASKA NATIVES: DENTAL HEALTH AIDE THERAPISTS.

"In general, 68% of American Indian and Alaska Native (AIAN) children have untreated dental caries. One-third of school children report missing school because of dental pain, and 25% report avoiding laughing or smiling because of the way their teeth look"(Nash).

There is currently a public debate, a compromise, and a lawsuit under way in the forum of the American dental profession. Alaska Native children suffer 2.5 times the amount of dental caries experienced by the general population in the US (Sekiguchi). Due to the crisis of severe need of the population and the highly inadequate level of care available to them the Alaska Native Tribal Health Consortium sought out a solution. Looking to models in other countries, a few Alaska Natives were sent to New Zealand for training to become Dental Health Aide Therapists (DHATs). Some of these Dental Therapists have since returned to Alaska and begun to practice. On January 31, 2006 the American Dental Association (ADA) and the Alaska Dental Society (ADS) filed a lawsuit against the Alaska Native Tribal Health Consortium, "seeking to stop the unlicensed practice of dentistry and dental surgery by non-dentists" (ada.org).

State of Oral Health in the rural Native communities in Alaska

There are numerous factors that contribute to the poor oral health experienced by these communities. The influence of Western Civilization has brought new dietary habits to this population. There is a large consumption of sugary foods, juices and sodas amongst the rural populations. A large portion of their food is imported and they consume many canned goods. This rapid change in diet came without the fluoridated water and oral health education available in many places in the lower 48. (Jolles) The results of this change include three times the adult periodontal disease compares with the general US population and that "60% of Alaska Native children have severe early(5 years or younger) childhood caries" (Sekiguchi.)

Another prominent feature of the situation is the lack of care available to Alaska Native populations. "For the 85,000 Alaska Natives who live in the 200 villages without road access, the only time dental services are available is when a dentist flies in to conduct a dental clinic" (Williard). These trips in by a dentist are rare, difficult due to lack of set-up, and too infrequent to solve the problem. Alaska has a population density of 0.5 people per square mile (disregarding the 3 largest population centers), which is 150 times less dense than the national average in the US (Sekiguchi). The remote villages are far too small to support a dentist, and there are far too few dentists to service the population. In the Indian Health Service there are 2800 individuals per each dentist, versus 1500 individuals in the general population (Nash). Many dentists would have trouble servicing 1500 patients in a year. There are many openings for dentists in Alaska that need to be filled. In Bethel, in Western Alaska, there are 10 dentists working for a region the size of Washington State. In 2004 there was a calculated 1815 dentists practicing in King County (Foster). In Bethel they are trying to recruit 6 more dentists for open positions by offering recruiting packages of \$180,000 /year, but these positions have remained open for 6 years. Dentists are not interested in moving to and practicing in rural Alaska. Alaska does not have a dental school. The closest US dental school to Alaska is the University of Washington. "The University of Washington participates in the program administered by Western Interstate Commission for Higher Education (WICHE) for students who reside in western states not served by a dental school (Alaska, Arizona, Hawaii, Montana, Nevada, New Mexico, and Wyoming)" (UW SoD). Last year however, there was only 1 Alaskan admitted to the University of Washington's dental program. There is a huge lack of dentists of AIAN ethnicity in the US. There are only 85 AIAN dentists currently in the US; there are 35,000 AIAN people for each AIAN dentist. Seventy of the 85 AIAN dentists are employed by Indian Health Services or a tribe. (Nash)

A solution? – part 1 – An attempt.

When it was so clear that there needed to be a solution a very apparent model came to light. In many countries, including Canada and Australia, there has been great success in the use of dental therapists. Dental therapists provide “oral health education, preventive services, diagnosis and treatment of dental caries, uncomplicated tooth removal, and pulpotomies” (Sekiguchi). Dental therapists in Alaska would also be modeling after and expanding on the Community Health Aide Program which began in Alaska in the 1950s (Sekiguchi). Dental therapists would “ideally be Alaska Natives from the rural community and have strong ties to the people. They will provide a more consistent basis of care. Being Native Alaskans, they will be more culturally sensitive to the issues of the indigenous population. Alaskan Natives will be empowered to take care of their own people” (Williard). The dental therapists could be based in smaller villages and more rural communities, but would have supervising dentists (located at a ‘hub’) available via telecommunication which could view the same x-rays and give opinions and recommendations for treatment. The training program for the dental therapists would last two years. A similar two-year program was attempted in the 1970s in Kentucky, which trained dental hygienists to do restorative procedures. A double blind study of the hygienists work as compared with dental school graduates found no significant differences in the quality of work (Nash).

The Problem with ‘The Solution’

The ADA and the Alaska Dental Society are filing suit “because [they] believe that Alaska Natives are being placed at risk—unfairly and unnecessarily—by non-dentists performing irreversible dental surgery” stated the president of the American Dental Association (ada.org). The ADA claims to be reluctantly pursuing the lawsuit, but they feel that the health of Alaska Natives is being ‘experimented on’ if dental therapists are allowed to practice (ada.org). There are currently eight dental therapists working in Alaska, and several more in training in Alaska (NPR). The ADA’s main problem is that the dental therapists would be performing irreversible procedures (extractions, fillings, pulpotomies, etc.) with inadequate training to combat the many unexpected abnormalities possible, and without appropriate knowledge to make decisions about treatment. On the ADA’s website they emphasize the level of education dental therapists undergo:

- A DHAT candidate needs only a high school diploma to qualify for training.
- The only known prerequisite to be a DHAT candidate, prior to being “trained” in New Zealand, is that the candidate need only possess “no less than sixth grade math and reading skills,” according to the Community Health Aide Program Certification Board Standards and Procedures, sec.5.10.040 (Trainees Selection Process).
- A DHAT candidate is only required to attend school for 18 to 24 months in New Zealand for training. The New Zealand program is not certified or accredited by any body or entity recognized in Alaska or the United States.
- The adequacy of the New Zealand program is judged not by American accreditation standards, but by comparison to foreign standards.
- A DHAT candidate does not take an examination administered independently from the DHAT program itself. Rather, a “Certification Board” under the very auspices of the DHAT program judges the adequacy of its own program’s candidates.

The ADA also points out in comparison the level of education of dentists in the US, which is usually a Bachelor’s degree followed by four years in dental school. The ADA says that they are willing to drop the lawsuit if the dental physicians stop practicing irreversible procedures.

A solution? – part 2 – A solution for everyone.

In criticizing the current ‘solution’, the ADA did not come without a suggested solution (available at ada.org):

- Placing a dental health aide in every village to provide educational and preventive services;
- Creating local training programs for dental auxiliaries so that Alaska Natives and others interested in dental careers need not leave the state for training;
- Securing full funding to enable the Indian Health Service to fill its vacant dental positions and prevent the Tribal health authorities from having to lay off additional dentists;
- Establishing an educational pipeline for qualified young Alaska Natives to attend dental schools, become fully qualified, licensed dentists and return to provide care in their home communities;

- Exploring new models for dental auxiliaries like the community oral health provider; and
- Jump-starting the whole process by placing volunteer dentists in the villages immediately, while the other elements of the program take shape.

The ADA does support the use of dental health aides, which differ from dental therapists in that they do not perform irreversible procedures. One thing everyone can agree on is that the US needs to have its own additional training program for some sort of dental auxiliary. Despite success in other countries, the ADA is not willing to accept the possibility that dental therapists should perform certain tasks in the US. There are questions raised by certain groups regarding to how ethical the ADA, and the dental profession, is in trying to prevent this route for care to Native populations, which are very hard to serve. This problem certainly wouldn't have come up, if the ADA had tried to solve it 10 years earlier. A dental school in Alaska, would facilitate more dental providers in the state, but this is unlikely to occur. There are very basic measures that still need to be taken in education and prevention; a massive reduction in soda consumption and other sugary foods, fluoridation, and a basic oral hygiene education and oral hygiene essentials need to be provided to the Alaska Native population.

Conclusion

The state of oral health amongst Alaska Natives is embarrassing for the US dental profession, who should be looking to prevent such disparities. Even if the ADA is putting an end to the use of dental therapists in Alaska, the intentions of the instigators of the movement are not wasted. The problem has been put into the public eye and a solution has been put forth by the ADA. Immediate attention is necessary for solving this problem. It is inhumane that Alaska native children are not provided for as well as possible and at the very least equally to all other children in the US. It is entirely avoidable that teenagers should need dentures, and that youth drink multiple cans of soda every day. Immediate action is necessary so that those 70% of children can live without pain and so that those 25% of children too embarrassed to smile, can laugh freely and enjoy life.

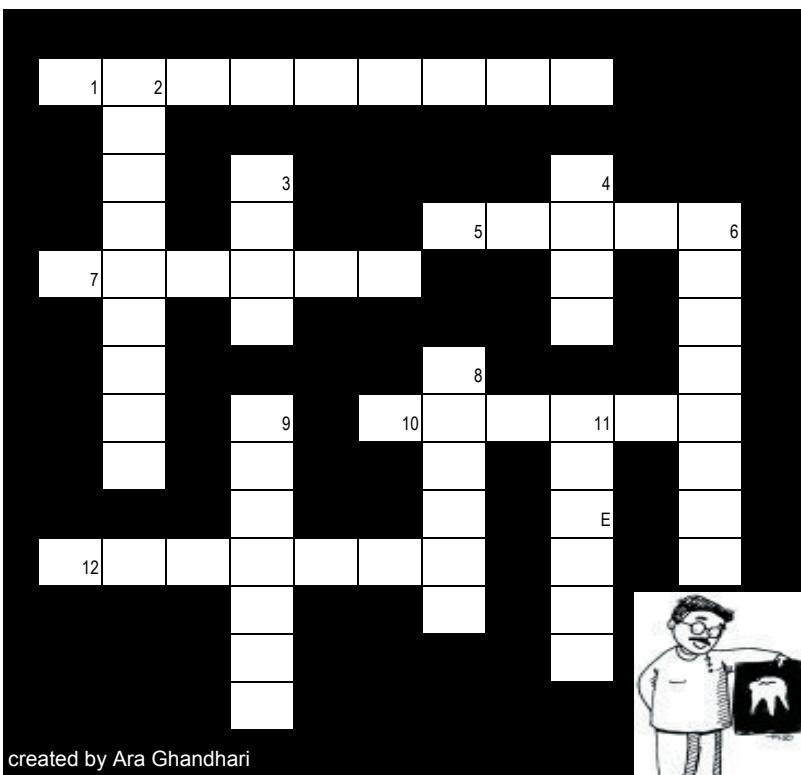


*Barrow Alaska circa 1961.
(<http://www.wam.umd.edu/~delwiche/CCD/CCD.html>)*

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DENTAL FUN PAGE!



ACROSS

- 1a. brand of antiseptic
 - 5a. Waxy string
 - 7a. Online dental school application
 - 10a. A hardened buildup the often leads to gum disease
 - 12a. found in trident gum; good for your teeth
- DOWN**
- 2d. inside of mouth
 - 3d. The pointed portion of the tooth
 - 4d. Years in dental school
 - 6d. UWSOD Dean
 - 8d. Rinse, _____, and spit
 - 9d. only 3 year dental school
 - 11d. number of primary teeth a child typically has

Fun Dental Quiz

- | | | |
|-------------------|----------|--|
| True / Fal | 1 | Fewer than 1/3 of us floss on a regular basis |
| True / Fal | 2 | More than 300 types of bacteria make up dental plaque |
| True / Fal | 3 | Americans spend \$2 million a year on dental products |
| True / Fal | 4 | Your toothbrush should be changed every 6 months |
| True / Fal | 5 | The average woman smiles about 62 times a day |
| True / Fa | 6 | Brushing should last for 1-2 minutes |
| True / Fa | 7 | 35% of each tooth's surface is left unclean when flossing is neglected |



Crossword Answers

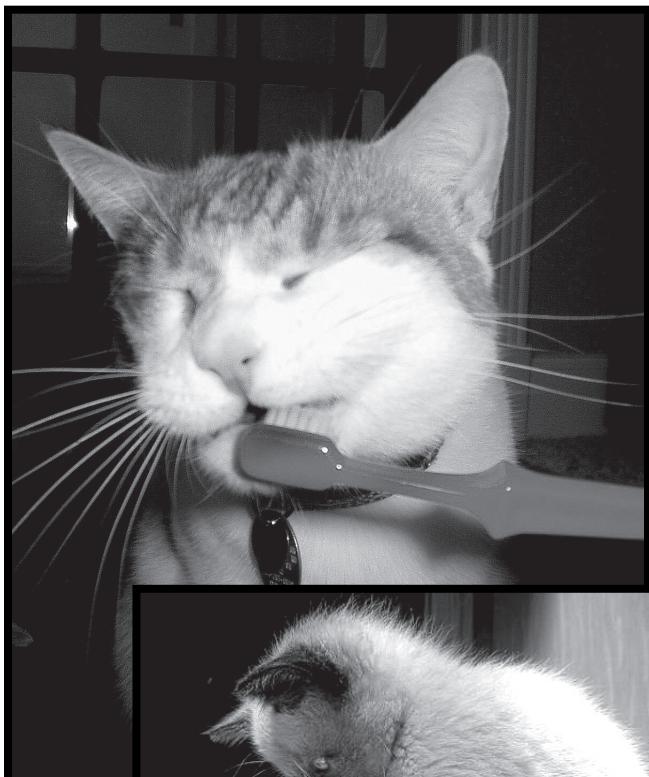
- 1a. Listerine 8d. Gargle
- 2d. intraoral 9d. Pacific
- 3d. cusp 10a. tarter
- 4d. four 11d. twenty
- 5a. floss 12a. xylitol
- 6d. Somerson
- 7a. AADSAS



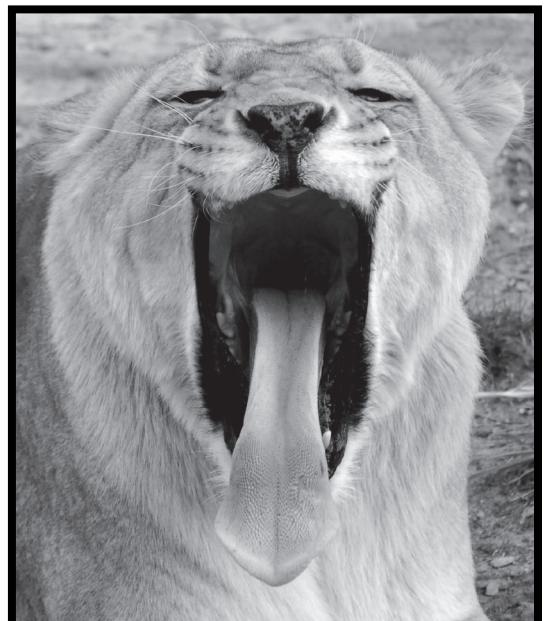
Quiz Answers

- 1 T
- 2 T
- 3 F (\$2Billion!)
- 4 F (every 3 mo.)
- 5 T
- 6 F (2-3minutes)
- 7 T

GOOD ORAL HYGIENE IS IMPORTANT FOR EVERYONE...



SO OPEN WIDE!



Smile!



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