



Laying the Foundation for a Healthy Life: Preventive Oral Health Care

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Many Americans may be unaware of the basic role teeth play in their bodies and how oral health and overall health are linked. They may not understand each tooth is an organ in its own right—formed as a whole and not restructured.

Experts on the other hand understand that insults to the teeth are permanent and that teeth are most susceptible to damage in the growth and development phase... a long period in a young life. Scientists have determined baby (primary) teeth start to develop between the sixth and eighth weeks in utero and permanent teeth begin to form in the twentieth week in utero. Calcification starts at the fourth month in utero and continues to about 25 years of age...young adulthood.

The integral role of teeth in overall health and life has led us to devote an issue to preventive oral health care. Colleen Huebner, Peter Milgrom, and Megan Kloetzel explain in the editorial that dental care during pregnancy is an essential component of the health of women and their infants. Julia Richmond describes the seriousness of dental caries in children and how to ensure they receive the dental services they need. Gordon Empey and Shanie Mason tell of a workforce development grant to train family and pediatric medical providers to address the oral health needs of children. They also portray the successes and challenges of developing a statewide oral health coalition. Lynette Kagihara describes barriers to oral health care for children with special health care needs. Ginger Kwan tells of her difficulties finding a dentist for her son with special health care needs. James Thommes describes how DentaQuest conducts its own evidence-based research on which to base development of wellness programs.

Reports from the states of Alaska, Idaho, Oregon, and Washington describe partnerships between state governments, the schools, and dental health professionals, as well as private health promotion groups, to improve oral health of young citizens of their states. ☒



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MCH Epidemiology Course Offered Through University of Washington Extended MPH Degree Program

The Epidemiology of Maternal and Child Health Problems (EPI 521) is a two-quarter, 3-credit distance course offered only winter and spring quarters. Taught by Marcia Williams, PhD, MPH, a core faculty member of the Maternal and Child Public Health Leadership Training Program, the course provides students with the opportunity to apply epidemiologic methodology and principles within the context of maternal and child health.

Student assignments include critical reviews of published research studies, interpretations of data presented in readings and provided by the instructor, short papers presenting a student's development of policy or program recommendations, and on-line group discussions. The course is composed of 10 units that are administered in two-week periods according to an established schedule.

The course requires previous education or training in epidemiology. Information on how to register is at <http://depts.washington.edu/hsedp/single-course>

Editorial Board Updates

We would like to welcome Beth Anderson, to the Northwest Bulletin's editorial board. Beth is the block grant and legislative coordinator for the Washington State Department of Health. Previously, she was an Americans with Disabilities Act project manager with the Washington State Department of Corrections. There she reviewed the department's approach to Americans with Disabilities Act for disabled offenders. She will represent Washington State on the editorial board.

We would like to extend an especial "thank you" to Colleen Huebner for acting as guest editor and to the authors who have contributed to this issue. ❧

Editorial . . .

Reducing Barriers to Oral Health Care for Pregnant Women

*Colleen E. Huebner, Peter Milgrom,
Megan K. Kloetzel*

Dental care is an essential component of the health of pregnant women. Nevertheless, screening and referral for dental care during pregnancy is often overlooked. Obstetric providers anecdotally report a key barrier is the lack of dentists willing to provide care, particularly for low-income pregnant women. Attitudes may be changing. A recent survey of general dentists in Oregon State found 91.7% agreed that dental care should be part of prenatal care.(1)

Greater awareness is needed among health care providers and pregnant women for dental care to become part of routine prenatal care. This is especially true for low-income pregnant women who may only have access to dental care through a public insurance program. For example, Medicaid-eligible adult pregnant women in the states of Idaho, Oregon, and Washington have dental coverage but only during pregnancy and up to two months post-partum. Oregon and Washington provide coverage to women with incomes up to 185% of the federal poverty level and Idaho provides coverage up to 133%.

Women Benefit from Dental Care During Pregnancy

Maintaining good oral health during pregnancy enhances the well-being of the woman and may help prevent complications of pregnancy. Among pregnant women, changes in frequency and types of food consumed and in oral hygiene can exacerbate existing tooth decay and increase the risk of new cavities. In addition, frequent vomiting may erode tooth enamel. Left untreated, cavities can result in abscesses and cellulitis, both of which can be life threatening. High-risk mothers, such as those who use methamphetamines, often have serious dental problems. Dental treatment to arrest tooth decay and repair damaged teeth is safe and appropriate during pregnancy.(2)

Today we know that dental care during pregnancy is safe and pregnant women who have healthy mouths have children who are less likely to have tooth decay.

Another reason dental care is advisable during pregnancy is that hormonal changes can lead to tender, bleeding gums or gingivitis. These problems are common and largely preventable if good oral hygiene is maintained during pregnancy. A dental rinse containing 0.12% chlorhexidine gluconate, available by prescription, can provide added benefit. Gingivitis that arises primarily during pregnancy is self-limiting; however, failure to treat it can result in disfiguring changes to the gums. Dental preventive care will have limited effect unless it is accompanied by permanent changes in personal hygiene.



Treatment of periodontal diseases, gingivitis, and bleeding and tender gums is also safe during pregnancy.(2, 3) Serious periodontal disease is rare among young adults (affecting approximately 1% of people, aged 18 to 34 years), and it is unlikely that pregnancy per se exacerbates pre-existing disease.(4) Primary risk factors for serious periodontal infection are smoking and diabetes. Patients with untreated HIV infection are also at high risk. Bone loss from periodontal infection is not reversible so early identification and referral is critical.

Several studies have suggested an association between periodontal disease and adverse pregnancy outcomes, including preterm delivery or low birth weight, gestational diabetes, preeclampsia, small for gestational age infants, and stillbirth.(5) Studies of reducing the risk of preterm delivery by providing periodontal therapy to women during pregnancy have yielded inconsistent results with regard to birth outcomes, yet give unequivocal evidence that dental treatment, including periodontal therapy, is safe during pregnancy.(6)

A Mother's Poor Oral Health Places her Child's Oral Health at Risk

The link between maternal and child dental health is well established. Women in poor dental health have high amounts of *Streptococcus mutans* in their saliva that can be transmitted to their infants through common parenting behaviors, such as sharing spoons and bites of food or licking pacifiers.(7) Infection usually occurs soon after birth, and the child's teeth are colonized as they erupt in the second year of life. Dental care during pregnancy can reduce this source of infection. Xylitol, available in chewing gum, mints, or for use on cereal and other foods, is also effective in reducing oral *Streptococcus mutans*.(8, 9)

Dental care during pregnancy should include anticipatory guidance about how to prevent dental decay in young children. This guidance should include instruction on the use of fluoridated toothpaste, which is critically important for slowing or reversing the decay process and preventing cavities.(10) Children at high risk for tooth decay should have their teeth brushed with fluoridated toothpaste as soon as the first tooth begins to appear, usually between six to ten months of age.

The directions and warnings on labels of fluoridated toothpaste vary depending on what other additives are in the paste. Typically, a toothpaste with few additives

will state that its use with children under two years of age be directed by a dentist or physician. It is likely this dissuades parents from using it at all. In response, a recent government-sponsored expert committee made the following recommendations for children at high risk for tooth decay:

- ◆ children should use fluoride toothpaste unless otherwise instructed by a health professional
- ◆ children under two years of age should use a "smear" of toothpaste, while children aged two to six years should use a slightly larger "pea-sized" amount
- ◆ children should spit out excess toothpaste after brushing—there is no need to rinse
- ◆ children should be supervised or assisted in tooth brushing by an adult (11)



Too Few Women Receive Dental Care During Pregnancy

Despite numerous potential benefits, relatively few women receive dental care during pregnancy. An analysis of four states' data (Arkansas, Illinois, Louisiana, and New Mexico) from the Centers for Disease Control and Prevention Pregnancy Risk Assessment Monitoring System (PRAMS) found only 23% to 35% of women received dental care during pregnancy. Among those who reported having a dental problem, approximately one-half received care.(12) Women with education levels beyond high school and women of high socioeconomic status were more likely to have seen a dental provider. Women who began prenatal care in the first trimester of pregnancy were more likely to have received dental care. Having

public insurance was inversely related to receipt of dental care. Specifically, pregnant women covered by Medicaid insurance were 24% to 53% less likely to receive dental care than pregnant women covered by private insurance. A study using Washington State Department of Health's PRAMS data found only 42% of women reported receiving dental care during pregnancy.(13)

There are a number of reasons why pregnant women may not receive dental care. These include:

- ◆ Women and dentists may not understand the importance of dental care during pregnancy
- ◆ Women may not know they have access to dental coverage under Medicaid while they are pregnant
- ◆ Many women are unaware of the link between their own poor oral health and the potential to infect their children
- ◆ Dentists may be reluctant to provide care to pregnant women because of fear of litigation in the event of a poor pregnancy outcome
- ◆ Obstetricians do not routinely refer women to dentists

It is not uncommon for dental and medical professionals to suggest a pregnant woman delay dental treatment until after birth. This is shortsighted. Low-income women served by Medicaid may have dental insurance benefits only during pregnancy or up to two months post-partum. By the time a woman establishes prenatal care with an obstetric provider and obtains an appointment with an available dentist, she may be near or in her second trimester, further reducing the optimum period for preventive care and treatment. In the first two months after delivery, a new mother may be less motivated and less able to seek dental care because of the demands of caring for an infant.

In 2004-2005, researchers surveyed patients receiving prenatal care from obstetricians regarding their perceptions of dental care and dental care practices. Fifty-four percent of patients reported dental care was important during pregnancy, yet only 44% actually received care. Fewer than half (40%) stated they were advised by their obstetricians to seek dental care and 10% reported a dentist refused to provide her care due to her pregnancy.(14)

A Call to Action

There are a number of ways in which public health professionals can work with other professionals and the public to reduce barriers to good oral health for pregnant women. These include:

- ◆ Sponsor inter-disciplinary professional education to help medical and dental providers learn about the importance and safety of recommended dental care during pregnancy
- ◆ Encourage timely written referrals, including any limitations on the timing of dental procedures or medications, from obstetric providers to dentists
- ◆ Educate women of childbearing years about the benefits and safety of dental care during pregnancy
- ◆ Advocate for dental coverage for low-income pregnant women in states without it (eg, Alaska)
- ◆ Advocate that Medicaid effectively inform low-income women about the dental coverage available to them during pregnancy, as well as to their infants and young children
- ◆ Reduce barriers to certification and recertification for women and children who are eligible for Medicaid
- ◆ Work with policy makers to change the Medicaid formulary to readily allow fluoridated toothpaste, chlorhexidine gluconate mouth rinses, and xylitol products, with a physician's prescription
- ◆ Advocate that the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) include fluoridated toothpaste in their food package, or pursue other means to subsidize the purchase price of fluoridated toothpaste, such as adding it to the Medicaid Preferred Drug List
- ◆ Join the [Toothpaste for Toddlers to Prevent Cavities](#) campaign to encourage industry, government, and the dental and medical professions to reduce barriers to good oral health through increasing the availability of fluoridated toothpaste ☒

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Oregon State Receives Workforce Development Grant

Gordon Empey and Shanie Mason

Oregon State's Oral Health Program was awarded a three-year Health Resources and Services Administration Oral Health Workforce Development grant in September 2009. The program has taken a more liberal perspective on workforce development by training family and pediatric medical providers on risk assessment, screening, fluoride varnish application, and family education.

The project will also target general dentists in an effort to address their discomfort with, and concerns about, serving the very young child, aged two years and under. The ultimate goal is to align the two disciplines in order that every child has a dental home and a "team" of providers to meet his or her oral health needs.

The grant is being implemented in two phases. Phase one, September 2009 to August 2010: pilot test training curriculum and supporting materials in a three-county region. In-person training is done by an expanded function registered dental hygienist. Phase two, July 2010 to August 2012: expand project statewide and introduce a Web-based training program. ☒

Additional information is at <http://bhpr.hrsa.gov/grants/09oralhealthabstracts.htm>

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Dental Caries in Children: Common, Infectious, Rapidly Progressive, and a Serious Threat to Overall Health

Julia A. Richman

As a pediatric dentist practicing in a low-income area in Pierce County, Washington, I continually see young children with severe dental caries (cavities). Our society, including the medical community and some in the dental community, traditionally has viewed oral health as separate from overall health. Cavities were an expected part of growing up, and having teeth filled, or even removed, was the norm. Dental caries was not considered a disease, but an annoyance.

We now know that dental caries is an often serious disease influenced by multiple factors, including intra-oral bacteria, carbohydrate consumption, plaque accumulation, salivary components, and enamel quality.(1) Dental caries can be prevented and treated. Unfortunately, while dental caries rates are decreasing in most age groups, caries rates are increasing in the two- to five-year-old group, and caries rates are high among low-income children.

How Dental Caries Affect Children

Having a small cavity that is filled before it becomes large may not be a big deal, but many children have multiple, large cavities. The bacteria that cause cavities can also infect the bone and gums surrounding the teeth, causing pain and sometimes swelling of the gums. Pain can interfere with sleep, eating a nutritious diet, and paying attention in school—all of which can have serious health, social, and economic consequences. More seriously, an abscess or systemic infection may require antibiotic treatments or even hospital admission. Children have even died as a result of untreated cavities.(2)

Cavities, even when treated, can also affect children's health. Frightening or painful procedures at the dentist's office may lead to dental anxiety. Having teeth pulled may result in loss of space in the mouth for permanent teeth to come in. And, finally, for extensive dental needs, children may have to undergo sedation or general anesthesia, both of which are procedures that have a small but real risk of adverse events.

Causes of Early Childhood Caries

Dental caries are caused by infectious bacteria that a mother or other people pass on to the child through the sharing of spoons or other utensils, or by other means of saliva exchange.(3) Once these bacteria are established in the mouth, the stage is set for the development of early childhood caries—a virulent and rapidly progressing form of dental caries. Poor dietary and oral hygiene practices also contribute to the development of dental caries. Exposure to fluoride certainly helps prevent caries, especially in developing teeth. However, not all children receive appropriate amounts of fluoride as recommended by American Academy of Pediatric Dentistry,



Photo courtesy of Bryan Williams

which recommends exposure via multiple sources including water, toothpaste, and regular professional applications at dental and medical visits.(4)

Ensuring Children Receive the Dental Services They Need

Many health care professionals, including those in dentistry, are not aware of the American Academy of Pediatric Dentistry's guidelines stating that children should have a dental home established by their first birthday. Many parents tell me that they were advised not to bring their child in for a dental visit until age three, four, or even five years! Obviously, all health care professionals need to be educated about the potential seriousness of dental disease: it is common, infectious, rapidly progressive, can have serious health consequences, and must not be ignored. Physicians can and should provide basic preventive care, such as fluoride applications and oral health instruction. More advanced procedures, such as sealant application, should be completed by a dentist so that the child's oral health can be evaluated and an appropriate treatment recommended.

A Call to Action

Dentistry is in a new age of advanced technology and understanding of the development of dental disease. Unfortunately, we are still battling the same disease—dental caries, and even more unfortunately, caries rates are increasing in young children.(5) Dentists have great potential to use new technologies, such as newly developed dental materials and advanced dental diagnostic techniques, to greatly decrease the burden of dental disease in individuals

and on our society. Maternal and child health professionals have the ability and responsibility to help ensure that children receive the dental services they need and do not suffer from pain, swelling, and systemic illness because of a cavity. It is vital to be informed about the prevention of dental disease so as to educate parents, identify children with dental treatment needs, and make appropriate referrals. Together we can fight dental disease and improve children's oral and overall health. ☒

Julia Richman DDS, MSD, MPH, is a pediatric dentist with Kid's Choice Dental, in Puyallup, Wash. She graduated in 2009 from the University of Washington's Pediatric Dental Residency Program and the Maternal and Child Public Health Leadership Training Program. Her interests include access to dental care for low-income families, early childhood oral health care, and prevention of dental trauma. She is an affiliate assistant professor at the University of Washington, Seattle.

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Resources

[How to Protect Your Babies Teeth from Cavities](#)

American Academy of Pediatrics, American Academy of Pediatric Dentistry

[Bright Futures Toolbox](#) National Maternal and Child Oral Health Resource Center

[Children's Oral Health](#) Centers for Disease Control and Prevention, Division of Oral Health

[Dental Health Issue for Children](#) Bright Futures for Families and Family Voices

[Special Issue on Children's Oral Health](#) November-December 2009 issue of *Academic Pediatrics*, available at the American Academy of Pediatrics Oral Health Initiative Website

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The Oregon Oral Health Coalition Fosters Partnerships to Improve Oral Health for Oregonians

Gordon Empey and Shanie Mason

Building on the successes of a statewide oral health summit in 2004, the Oregon State Public Health Division's Oral Health Program, with guidance from its advisory committee, began development of a broad-based statewide oral health coalition. The advisory committee, consisting of key dental organization partners and stakeholders, planned a two-day oral health summit to include three major activities: 1) release of the first state oral health plan, 2) the convening a second oral health summit, and 3) the launch the first statewide oral health coalition.

The coalition's first meeting was held the day after the May 2006 summit, with about 50 members in attendance, representing dental and medical provider groups, dental insurance organizations, businesses, local and state public health departments, safety net clinics, advocacy groups, non-profit organizations, and educational institutions. Using feedback from the summit, members developed the coalition's name, mission, objectives, and early structure. In addition, a leadership group was created to further develop and implement the coalition's infrastructure.

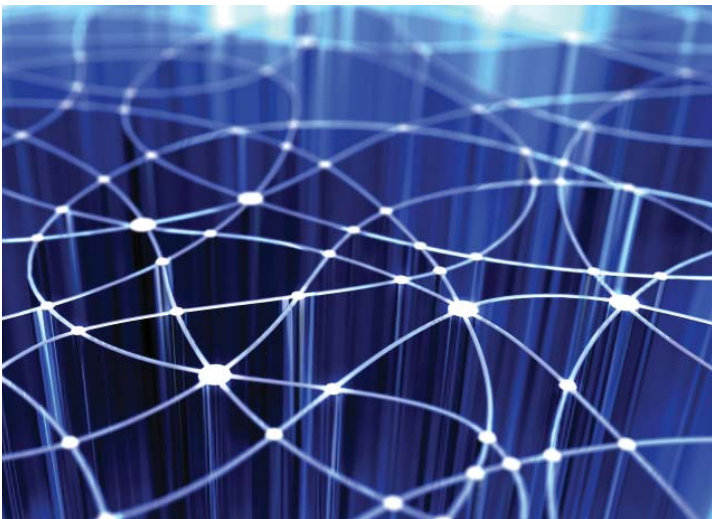
The Oregon Oral Health Coalition's mission is to be "...a central source for advocacy, information, and communication about oral health issues in Oregon and to organize individual stakeholders' individual strengths into a collective power for oral health." Its primary purpose is to improve the general health of all Oregonians through oral health. Coalition objectives include:

- ◆ formulate and advocate public policy
- ◆ shepherd statewide oral health planning processes
- ◆ convene oral health events
- ◆ communicate oral health information
- ◆ support local coalitions
- ◆ integrate oral health with the full spectrum of health care, from prevention and promotion to treatment

During the first two years of implementation, the Oregon Oral Health Coalition was supported by the Oregon State Oral Health Program, which provided leadership, administrative support, conference planning, fiscal monitoring, surveillance data, evaluation, and Website development.

Our Successes

In spite of the desire of some new members to begin advocating for oral health issues, the coalition's board of directors agreed to focus on establishing inde-



pendent non-profit corporation status. The plan identified infrastructure development, including election of officers, development of standing and issue committees, creation of written by-laws, establishment of a Website, and recruitment of funding sponsors, as key to preparing and applying for non-profit status. With these in place, an application for 501(c)(3) non-profit status was submitted in 2007. Non-profit status was granted in 2008, which allowed the Oregon Oral Health Coalition to apply for grants, provide members and contributors with tax deductible donations, and conduct limited advocacy work with the legislature.

Other successes in the first three years include creating a legislative agenda for the 2007 and 2009 legislative sessions, advocating for inclusion of dental experts on the various Oregon Health Board subcommittees, receiving an early childhood grant, expanding from 50 to over 100 members, partnering with a local coalition to support a dental access pilot project, and shifting administrative support to a partner organization.

Our Goals for the Future

The board of directors has identified several critical issues in regards to board development that need addressing in 2010, including board composition, criteria for membership, expectations and responsibilities of members, and recruitment of new members. Fundraising, including recruitment of new sponsor organizations, has been identified as critical for the Oregon Oral Health Coalition's progress. The goals for 2010 are to create marketing and communications plans, and new Website. There is also the potential to obtain a part-time executive director.

The Oregon Oral Health Coalition will continue to partner with the Oregon State Oral Health Program to expand the dental access pilot project, create an on-line oral health resources inventory, and collaborate on a newly funded statewide grant, *First Tooth*. The purpose of the grant is to improve access to dental services for infants and toddlers by training medical and dental providers and integrating their services.

Our Challenges

Maintaining a broad-based coalition of organizations, stakeholders, and advocates is a time-consuming and difficult process. Although results from a member survey showed members agreed there is diversity within the Or-

gon Oral Health Coalition, qualitative comments suggest more work is needed in recruiting diverse members and organizations. Consumers, business people, educators, and advocacy groups need to be invited to participate in the coalition. Other comments suggested coalition members need to be involved in other potential partner organization and coalitions to ensure an oral health voice and to support integration.

Identifying members to take leadership roles for various coalition activities has also been a challenge. Results from a 2008 member survey confirm the need to encourage members to assume leadership roles and participate in committees. ☒

Gordon Empey DMD, MPH, is dental director of the Oral Health Program, Oregon Public Health Division. He formally served as dental director for the Seattle-King County and Multnomah County's Departments of Public Health. Dr. Empey founded and was dental director of MultiCare Dental, a Medicaid-managed dental care organization from 1994 through 2005. He currently serves on the best practices committee and is director of the executive committee of the Association of State and Territorial Dental Directors. He received the Outstanding Leadership Award from the Oregon Primary Care Association in 2001.

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Shanie Mason, MPH, is oral health program manager with the Office of Family Health, Public Health Division, Oregon Department of Human Services. She completed her MPH degree at Portland State University, where she also taught undergraduate health courses. She has been with the Oregon Public Health Division for thirteen years, serving as the outreach coordinator for the state WIC program and for the last seven years as the manager of the oral health program. She is married with two young sons, is an avid reader, and competes in half marathons.

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Family-Centered Dental Care for Children with Special Health Care Needs: A Survey of Parents

Lynette E. Kagihara

Children with special health care needs are at high risk of oral diseases.(1,2) Parents of these children identify preventive dental care as the most prevalent unmet health care need, affecting substantially more children than any other unmet health care need.(3) Primary care health professional organizations advocate coordination of patient services across the health care system and improved collaboration between medical and dental providers in a patient-centered health home.(4) I conducted a survey¹ of parent leaders in the organizations [Family Voices](#) and [Family to Family](#) to elicit their preferences regarding the dental home (a place in which their children may receive family-centered dental care) and their opinions about barriers to accessing dental care. Study findings confirmed the following:

The dental home and medical home share key components. Survey respondents emphasized the importance of a dental home where care is accessible, family-centered, continuous, comprehensive, coordinated, compassionate, and culturally competent.

For the most part, parents are unaware of dental home guidelines. Almost 85% of survey respondents indicated they did not know of the American Academy of Pediatric Dentistry's recommendation that children have their first oral examination by 12 months of age. They confirmed the need to educate parents and primary health care providers (both medical and dental) regarding the importance of establishing a dental home for young children.

The lack of dentists who are qualified and willing to treat young children with special health care needs is a major barrier to care. Often these parents had to travel long distances to obtain care for their children. Survey respondents recommended dental providers receive more education and training so that they can be more confident and willing to treat children with special health care needs. Part of this training would also include listening carefully to families, helping families feel like partners and joint

decision makers, and completing comprehensive oral assessments and individualized preventive plans.

Low Medicaid reimbursement rates for dental services are a major barrier to care. Survey respondents also recommended that qualified dental providers receive financial incentives, such as enhanced Medicaid reimbursement, loan forgiveness, or tax breaks for Medicaid fees, to compensate them for the additional education and training.

Oral health is integral to total health. Public health professionals should work towards a comprehensive primary care system whereby the medical home and dental home may be consolidated into a health home. The health home would consist of a network of primary health care providers trained in a common philosophy of practice and advocacy who are willing to see children with special health care needs. ☒

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How Mickle Lost His Two Front Teeth and Found a Caring Dental Clinic

Ginger Kwan

Look at Mickle’s beautiful smile—it’s hard to imagine that he was missing two front teeth when he was five and six years old. He lost his teeth because of poor dental hygiene. We wondered and worried if his permanent teeth would ever come out. Fortunately, they did. Through this hard lesson, I have learned to pay more attention to his oral health care routine, making sure he brushes his teeth daily, in the morning and before bed, and has regular dental cleaning and check-ups twice a year.

Although caring for his teeth has always been a struggle, we finally found great comfort in a kind, caring dental clinic team. After visiting them for over seven years, Mickle has overcome many of his sensory challenges and is no longer afraid of his dental visits.

Mickle was diagnosed with autism when he was 22 months old. He was extremely sensitive to touch when he was young. From his facial expression, we could easily see how frightened he was when someone touched his head, or brushed or washed his hair. He would cry, scream, and struggle every single time. Mickle’s reaction to tooth brushing was not very different. In addition, he was intolerant to the smell and taste of toothpaste. Of the millions of things I needed to do to care for Mickle, tooth brushing was the most unpleasant.

Outside of school, Mickle’s week consisted of doctor’s visits and 20 hours of home interventions, including sensory integration and speech, and occupational and applied behavioral analysis therapies. At one point in time, 23 professionals were involved in his care.

With such an extensive care and treatment program, Mickle’s oral hygiene was the least of my concerns, not only because I was too exhausted to fight with him every day but also because of my own experience growing up in Taiwan. There, people said, “Toothache is not an illness.” There was no preventive oral health care. I remember the only time I went to see a dentist was when I had toothache.

With Mickle, I soon realized my mistake when a dental check-up revealed cavities in his molars and front teeth. Mickle’s dentist recommended oral surgery. They put him to sleep and he came out with two

Mickel at age 14



front teeth missing and a couple of shining crowns. That was how Mickle lost his two front teeth.

Finding a good dentist who treats children with special health care needs is no easy task. After a long search, we found a clinic that provided care for children and adults with disabilities. Then we saw that the clinic restrained these patients during dental treatments—we decided to look elsewhere.

We asked other parents of children with autism for suggestions. That worked—we finally found a clinic where Mickle gradually adjusted to oral health care and is no longer afraid of dental check-ups.

This clinic does many things differently from other clinics. It has several small, quiet play places: one in the reception area, one in the main treatment area, and one in a corner of each treatment room. Mickle plays in the reception area play place while I check in. They also have a short wait time of usually only a few minutes. This works for Mickle because of his short attention span—the longer he has to wait, the more inappropriately he behaves. The staff are kind, gentle, caring, and flexible. They show respect and confidence in Mickle and never force him physically. The dentist listens to me about what will work for Mickle and allows me to be part of the process.

At the beginning of our visits seven years ago, Mickle was allowed to sit on my lap for examination and some treatments. When he needed to lie down for a treatment, which he was very afraid of, the dentist would show Mickle all the tools she was going to use and explain every step of the procedure.

For the past a couple of years, Mickle has felt comfortable enough to see other dentists in the clinic. In addition, the dental hygienist now can clean his teeth without any breaks. At home, he brushes his teeth daily but still does not like toothpaste. Although I still have to supervise him, it's much easier, and I have great hope that someday he will take care of his teeth without being told or supervised.

Thanks to all the caring staff at Seattle's Westside Children's Dentistry. The dental clinic staff's many small steps in making care easier for children with special needs have made a huge step in our family's life, particularly for Mickle. ☒

Ginger Kwan is a wife and mother to three youth. Mickle is her middle child. Ginger's professional life is devoted to promoting culturally competent services for people with developmental disabilities and their families. She has been a cultural competency trainer, program manager, and now the director of [Open Doors for Multicultural Families](#), a newly formed nonprofit organization dedicated to meeting the needs of diverse families whose children have special needs and developmental disabilities.

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New Edition of Oral Health Knowledge Path

The National Maternal and Child Oral Health Resource Center in collaboration with the Maternal and Child Health Library at Georgetown University released a new edition of *Oral Health for Infants, Children, Adolescents, and Pregnant Women Knowledge Path*.

This February 2010 edition provides links to data, effective programs, and reports on policy and research aimed at improving access to and the quality of oral health care.

The knowledge path contains resources for professionals and consumers, and on specific aspects of oral health. Topics include child care and Head Start, dental caries, dental sealants, early childhood caries, fluoride varnish, K-12 education, pregnancy, school-based care, and special health care needs.

The oral health knowledge path is available at www.mchoralhealth.org/knwpathoralhealth.html.

Evidence-Based Research Assists in the Development and Administration of Innovative Wellness Programs

James E. Thommes

DentaQuest (formally known as Doral Dental) administers dental benefits for Medicaid, Children's Health Insurance Program, and Medicare members. It supports seven state agencies, including the State of Idaho, and over 50 managed care organizations nationwide. Its mission is to improve the oral health of residents in the regions it serves through dental benefits, creation and transfer of knowledge, and philanthropy.

One of the challenges in administering a dental benefits program is ensuring members have access to care. Wellness programs improve the lives of members and reduce the cost of delivering care. In response to the growing body of research showing the importance of oral health to overall health, DentaQuest has developed a continuum of wellness programs to address the needs of members during critical stages of oral development. These programs:

- ◆ stress the importance of dental health during pregnancy (Smiling Stork)
- ◆ educate parents, caregivers, and health care providers on the importance of proper dental care for infants and children (Healthy Beginnings)
- ◆ educate members about the need for proper preventive care and alternatives to emergency room care in emergency situations (Care Coordination and Emergency Room Outreach)
- ◆ educate teens about the importance of preventing obesity (Super Kids, Super Teeth)
- ◆ educate members about the link between periodontal disease and diabetes (One Less Worry)

Data-Driven Solutions

Data form the backbone of member outreach programs. DentaQuest conducts its own evidence-based research and uses results to develop and administer innovative wellness programs. The goal of one study was to help patients who do not seek preventive care but only emergent care to understand the benefits of preventive dental care. We examined the follow-up by offices after patients presented for an emergency or palliative treatment appointment. The results were quite impressive: approximately 55% of patients who initially sought emergent treatment followed up with a diagnostic exam (credit should also be



given to the office staff who helped patients continue their courses of comprehensive care).

It is DentaQuest's goal to work with dental offices in an ongoing effort to educate patients about the benefits of preventive care, as well as the availability of covered benefits for this care. We will continue to track the results of this and other studies to determine the impact of outreach initiatives. DentaQuest is grateful for the cooperation of dentists and their staff to conduct these studies.

We encourage you to talk to your patients about establishing a dental home and the importance of preventive care. A dental home provides parents and caregivers with the latest evidence-based information on the importance of proper dental care to help prevent tooth decay in children. This care establishes the foundation for a lifetime of oral health. ☒

Dr. James Thommes, DDS, is DentaQuest's full-time dental director. He holds dental licenses in numerous states and practices general dentistry in Vernon Hills, Illinois. Prior to joining DentaQuest, Dr. Thommes served as president of Independent Dental Consultants, Ltd., and was a dental consultant for First Commonwealth Dental HMO and MetLife.

If you would like more information about DentaQuest's wellness programs and studies, please contact NaDene Palmer, Idaho Smiles Executive Director, at 208-286-3517 or at nadene.palmer@dentaquest.com.

State Reports . . .

Alaska: Early Childhood Oral Health

Yvonne Wu Goldsmith

Children in Alaska have high rates of dental decay. Visual assessments of the oral health¹ of third-grade and kindergarten children were conducted in 2004 and 2007. The 2007 survey found:

- ◆ 60% of third-grade children had treated or untreated dental decay with 26% having untreated decay
- ◆ 41% of kindergarten children had treated or untreated dental decay with 24% having untreated decay
- ◆ 10% of kindergarten children had dental decay in primary maxillary anterior teeth (an indicator for early childhood caries)

Higher rates of dental decay were found in Alaska Native and other racial and ethnic minority children in both kindergarten and third-grade. On the positive side, more than half (55%) of third-grade children had at least one dental sealant on at least one permanent first molar. Dental sealant use was higher among Alaska Native third-grade children at 68%.

Almost 83% of parents reported having some type of dental insurance. Twelve percent of parents reported having difficulty obtaining needed dental care for their children in the past 12 months. The most frequent reason given was that they could not afford care. An additional 10% reported that they could not obtain dental care for

Dr. Amanda Ashley recently won the Robert Wood Johnson Foundation's Community Health Leaders award, for overcoming "daunting odds to improve the health and quality of life for disadvantaged or underserved men, women and children." Dr. Ashley practices dentistry at Samuel Simmonds Memorial Hospital, in Barrow, Alaska. She was recognized for turning the dental clinic into a place that kids enjoyed visiting, creating a local dental assistant training program through the community college, promoting water fluoridation, and making tooth brushing an everyday activity.

their children because their dentist did not accept Denali KidCare (SCHIP) or Medicaid.

Geographic and Workforce Issues Impact Oral Health

Most urban areas of Alaska, with one notable exception, have fluoridated drinking water, although some urban households have only well water. Most rural villages lack the required infrastructure to fluoridate drinking water. Moreover, some rural villages perceive their water quality to be poor, which may reduce consumption of water and increase consumption of soda and sugared beverages. Dental providers report consumption of soda and sugared beverages contributes to high rates of dental decay. Through our Alaska Childhood Understanding Behaviors Survey (CUBS), a survey of mothers of three-year-old children, we collect information about habits with respect to drinking sweetened drinks, eating candy and sweets, brushing teeth, and seeing the dentist.

An aging dental workforce may result in fewer dentists in Alaska: 25% of practicing dentists are aged 60 years and older. It is anticipated dental graduates and dentists moving to Alaska to practice will not offset those retiring in the next five years.

Alaska Dental Action Coalition

Collaboration among stakeholders is key to creating comprehensive systems of care. The Alaska Dental Action Coalition, a statewide coalition of approximately 20 organizations, including state agencies, is a major contributor to the state's oral health plan. The coalition works with the Department of Health and Human Services on oral health policies. ☒



Yvonne Goldsmith, MS, tracks health indicators and engages in research on maternal, child, and family health for the Alaska Department of Health and Social Services, Division of Public Health. She also serves on the editorial board of the Northwest Bulletin: Family and Child Health.

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¹Oral Health Surveys of Alaskan Children. Results available at www.hss.state.ak.us/dph/wcfh/Oralhealth/report.htm

Idaho: District Health Departments Reach Children with Preventive Dental Care



Mimi Hartman-Cunningham

Children in elementary schools all over Idaho are rinsing and swishing with fluoride mouth rinse to prevent dental caries. During the 2008-2009 school year, 35,000 children qualifying for free and reduced school lunch and in communities without fluoridated water supplies participated in fluoride mouth rinse programs. Idaho's health district dental hygienists coordinated mouth rinse programs with schools, school nurses, and teachers to make sure students received this important preventive oral health care.

Prevention is the Key Message

Dental caries can be painful, cause infection, and lead to problems in eating, speaking, learning, and self-esteem. Parents may not realize that dental caries are caused by a bacteria, *streptococcus mutans*, which develops plaque on the tooth surface. Bacteria in the plaque interact with sugars in foods by turning them into acids that dissolve tooth enamel and cause caries.

District health department dental hygienists teach parents and children easy ways to prevent dental caries and the importance of regularly going to the dentist and establishing lifelong habits of proper self-care. They also work with Women, Infants and Children (WIC) and Head Start programs to conduct oral health assessments and provide fluoride varnish and sealants.

2008-2009 Smile Survey

To assess the oral health status of Idaho children, the Idaho Oral Health Program, in partnership with the Idaho Department of Education, the health districts, and selected schools, participated in a statewide oral health survey of 4,634 third-grade students during school year 2008-2009. The Smile Survey is a national assessment survey conducted every four years in Idaho. Some significant improvements were noted. The rate of third-grade students with active tooth decay was 22.5%, a decrease from 27.3% in 2001. The rate of third-grade students needing urgent restorative dental services due to pain, infection, inflammation or bleeding was 2.8%, significantly lower and nearly half the rate of 5.4% in 2001. There was no difference in oral health status between boys and girls, but Hispanic students had higher rates of active tooth

decay and lower rates of preventive sealant use when compared to non-Hispanic whites.



Idaho Smiles Program

Restorative care is also the focus of Idaho dental programs. Over 154,000 children aged 20 years and younger are enrolled in the Medicaid Idaho Smiles Program and receive restorative care. All health and education staff need to step forward to help parents and children prevent dental caries with proper brushing, flossing, and establishing routine care with a dentist and dental hygienist. ☒

Mimi Hartman-Cunningham, MA, RD, CDE is program manager for Idaho Oral Health Program, Idaho Department of Health and Welfare, Division of Public Health, Bureau of Community and Environmental Health. She has worked in public health for 12 years managing the Idaho Diabetes Prevention and Control Program and most recently, the Idaho Oral Health Program. While managing both programs, she has been able to create opportunities to address the impact of oral health on chronic diseases.

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Oregon: Progress Towards Healthy People 2010 Oral Health Objectives



Gordon Empey and Shanie Mason

The Healthy People 2010 oral health objectives represent a comprehensive approach to addressing oral disease and disparity. State policies can have an extreme impact on a public health agency's achieving or falling well short of these national goals. This impact can be illustrated in Oregon State with two cornerstones of oral health public health: school-based dental sealant programs and community water fluoridation.

School-Based Dental Sealant Programs

In 2007, several legislative bills passed that provided specific support to school-based dental sealant programs. First, the Oregon Dental Practice Act was changed to allow dental hygienists to screen and place sealants without supervision of a dentist. And second, general funds were allotted for the purchase of portable dental sealant units and for staff to support the program. These two policy changes resulted in the Oregon Oral Health Program expanding the school-based dental sealant program from 11 schools in the 2006-2007 school year to 140 schools in the 2009-2010 school year.



The 2007 Oregon Smile Survey of first- through third-grade students found that 43% of third-grade students had dental sealants. It

is anticipated that the percent of third-grade students with dental sealants will be well above the Healthy People 2010 objective of 50% by the time the Oregon Smile Survey is repeated in 2012.

Community Water Fluoridation

While there have been marked improvements in dental sealants, stagnant would best describe water fluoridation. Oregon is a notoriously under-fluoridated state with about 25% of the population receiving optimally fluoridated water. Beginning in 1999, the past six legislative sessions have all seen bills mandating water fluoridation in communities serving more than 10,000 people. None of these bills passed.

Many legislators have become desensitized to the issue and many advocates are experiencing burn out. This is an example where state policy, or lack thereof, leaves Oregon falling dismally short of the Healthy People 2010 objective of 75%.

While both school-based dental sealant programs and community water fluoridation are important cornerstones in oral health public health, they are also shining examples of how public policy affects a state public health agency's ability to address oral disease and disparity. For Oregon, the key has been to capitalize on policy that is attainable. ✕

Gordon Empey DMD, MPH, is dental director of the Oral Health Program, Oregon Public Health Division. He formally served as dental director for the Seattle-King County and Multnomah County's Departments of Public Health. Dr. Empey founded and was dental director of MultiCare Dental, a Medicaid-managed dental care organization from 1994 through 2005.

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Washington: Oral Health Updates



Joseli Alves-Dunkerson

It is well known that oral health is a critical component of general health and wellbeing. In 2000, the Surgeon General called attention to the silent epidemic of oral diseases in our country. Nevertheless, oral health continues to be taken for granted not only by individuals but also by providers, insurers, and policy makers. The resulting lack of funding and system capacity has led to critical gaps in access to preventive and restorative oral health services for many Americans. In the most tragic cases, these gaps have led to needless deaths due to untreated dental infections.

Washington State has worked hard to identify and address the oral health needs of its population. The 2007 report, [The Impact of Oral Disease on the Lives of Washingtonians](#), presents information on the oral health needs of our state. It describes the state’s dental workforce, available preventive measures, and resources and financing for dental care. It includes data collected at both the state and county level.

Washington State Oral Health Plan

In 2009, oral health leaders and partners met to develop a state oral health plan. The development process for this oral health plan was highly collaborative, with extensive involvement from the public, health professionals, and

representatives from both public and private organizations. A leadership group composed of representatives from private and public organizations oversaw the process. The [Washington State Collaborative Oral Health Improvement Plan 2009-2014](#) includes a vision for better oral health for all Washingtonians and guiding principles and specific goals and objectives in six strategy areas: system infrastructure, oral health data, oral health promotion, oral disease prevention, access to care, and implementation and sustainability.

Also in 2009, the [Washington State Oral Health Workforce Report](#) was completed. This report presents the current numbers and future projections for the state’s oral health workforce, as well as a brief description of provider incentives and clinical services available for the underserved groups in our state.

If you or your Washington State organization want to participate, please write to the [Washington State Oral Health Coalition](#) at info@ws-ohc.org. ☒

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State Oral Health Programs			
State	Oral Health Program	Dental Director	Oral Health Plan
Alaska	http://hss.state.ak.us/dph/wcfh/Oralhealth/	Brad Whistler, DMD brad.whistler@alaska.gov	Alaska Oral Health Plan 2008-2012
Idaho	http://healthandwelfare.idaho.gov/Health/OralHealth/tabid/106/Default.aspx	Mimi Hartman-Cunningham, MA, RDH hartmanm@dhw.idaho.gov	Idaho Oral Health Plan 2008-2013
Oregon	www.oregon.gov/DHS/ph/oralhealth/	Gordon B. Empey, DMD, MPH gordon.empey@state.or.us	Copies of Oregon’s State Plan for Oral Health can be requested at oral.health@state.or.us . This plan, created in 2006, is scheduled to be revised by 2011.
Washington	www.doh.wa.gov/cfh/oralhealth/index.htm	Joseli A. Alves-Dunkerson, DDS, MPH, MBA Joseli.Alves-Dunkerson@doh.wa.gov	Washington State Collaborative Oral Health Improvement Plan 2009-2014

Resources . . .

ABCD: Access to Baby and Child Dentistry

www.abcd-dental.org/

Bright Futures in Practice: Oral Health

Bright Futures at Georgetown University

www.brightfutures.org/oralhealth/about.html

Bright Futures Toolbox

National Maternal and Child Oral Health Resource Center

www.mchoralhealth.org/Toolbox/professionals.html

Cantrell C. *Engaging Primary Care Medical Providers in Children's Oral Health*. Portland, ME: National Academy for State Health Policy; September 2009.

Available at www.nashp.org/sites/default/files/EngagingPrimaryCareMedicalProvidersCOH.pdf

Children's Dental Health Project

www.cdhp.org/

Community Water Fluoridation

Centers for Disease Control and Prevention

www.cdc.gov/Fluoridation/

The Cost of Delay: State Dental Policies Fail One in Five Children

The PEW Center on the States

www.pewcenteronthestates.org/report_detail.aspx?id=56870

Dental Home Online Resource Center

American Academy of Pediatric Dentistry

www.aapd.org/dentalhome/

Dental Public Health

Partners in Information Access for the Public Health Workforce

<http://phpartners.org/dentalhealth.html>

Division of Oral Health

Centers for Disease Control and Prevention

www.cdc.gov/OralHealth/index.htm

Healthy People 2010: Oral Health Objectives

Division of Oral Health

Centers for Disease Control and Prevention

www.cdc.gov/OralHealth/topics/healthy_people.htm

KASA: Kids as Self Advocates

www.fvkasa.org/

National Institute of Dental and Craniofacial Research

www.nidcr.nih.gov/OralHealth/

National Maternal and Child Oral Health Resource Center

www.mchoralhealth.org/

National Oral Health Policy Center

Children's Dental Health Project

www.cdhp.org/programs/national_oral_health_policy_center_cdhp_mchb/about_nohpc/about_nohpc

Northwest Center to Reduce Oral Health Disparities.

Guidelines for Oral Health Care in Pregnancy.

Seattle, WA: School of Dentistry, University of

Washington; 2009. Available at http://depts.washington.edu/nacrohd/sites/default/files/oral_health_pregnancy_0.pdf

Oral Health for Infants, Children, Adolescents, and Pregnant Women Knowledge Path, February 2010
The Maternal and Child Health Library at Georgetown University

www.mchlibrary.info/KnowledgePaths/kp_oral_health.html

Oral Health Initiative

American Academy of Pediatrics

www.aap.org/commpeps/dochs/oralhealth/

Oral Health Materials

Family Voices

www.familyvoices.org/pub/index.php?topic=oralhealth

Special Issue on Children's Oral Health. Academic

Pediatrics, Nov/Dec 2009. Contains the background papers from the 2008 *American Academy of Pediatrics National Summit on Children's Oral Health: A New Era of Collaboration*. Available at www.aap.org/oralhealth/summit/index.cfm

Proven and Promising Best Practices for State and Community Oral Health Programs

Association of State and Territorial Dental Directors
www.astdd.org/index.php?template=bestpractices.html

Free On-line Training Opportunity

Protecting All Children's Teeth (PACT): A Pediatric Oral Health Training Program is intended for primary care pediatricians, family physicians, allied health professionals, and health care provider treating children in rural or underserved communities. The goal of the curriculum is to become more knowledgeable about child oral health, more competent in providing oral health guidance and preventive care, and more comfortable sharing the responsibility of oral health with dental colleagues.

Oral Health Initiative, American Academy of Pediatrics
www.aap.org/oralhealth/pact.cfm