



April 20, 2009

Dear NOHC Attendee,

The attached brief updates of progress in the areas of the 5 Action Steps of the *National Call to Action to Promote Oral Health* were provided as background materials for Dr. David Satcher's keynote address at the American Academy of Pediatrics (AAP) "Peds21" Oral Health Conference at their National Conference and Exhibition in Boston, October 10, 2008; and to the attendees of the "National Summit on Children's Oral Health: A New Era of Collaboration," held in Chicago, November 7-8, 2008.

For further information on oral health activities of the AAP please visit the website of the Oral Health Initiative at www.aap.org/oralhealth or contact Wendy Nelson at wnelson@aap.org

Sincerely yours,

A handwritten signature in black ink that reads "Wendy Mouradian".

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Detailed Updates for the Five Action Steps from the National Call to Action

In compiling significant activities that respond to the five actions recommended in the Call, it was clear that many reflect a combination of Actions. So, for example, in order to overcome barriers to access it is necessary to change perceptions of policymakers and practitioners, expand public-private partnerships, and address workforce issues. Indeed, changing perceptions and expanding partnerships emerge as underlying themes and strategies in all the responses to the Call. Nevertheless, we have tried to summarize under each Action representative efforts that more closely adhere to the intent of the Action.

Action 1: Change Perceptions of Oral Health

Widespread publicity following publication of the Surgeon General's Report increased awareness of the importance of children's oral health, and of the impact of oral health disparities on their overall health and well-being. Evidence of this increased awareness has included, among others, attention in the media; in Congress and in state legislatures; in federal agencies and in medical organizations. There have been grass-roots activities and targeted oral health awareness campaigns; conferences, research activities (funded by National Institute of Dental and Craniofacial Research and others), and scientific publications addressing children's oral health issues. The death of two children from the consequences of untreated caries has increased the sense of urgency around addressing access problems for poor children, and focused attention on this aspect. The following are a few of the efforts aimed at calling attention to children's oral health:

The **National Maternal and Child Oral Health Resource Center**, at Georgetown University, funded by the Maternal and Child Health Bureau (MCHB), has grown over the decade to become a major source of information and materials for both professionals and the public, with the goal of improving oral health services for pregnant women, infants, children, adolescents and their families. The **National Institute of Dental and Craniofacial Research (NIDCR)**, through its information office and its **National Oral Health Information Clearinghouse** answers queries in many areas of oral health, including pediatric oral health, and has an ever-growing roster of topical brochures in English and Spanish.

The **American Academy of Pediatrics (AAP)** has taken a leadership role in recognizing the importance of children's oral health. The AAP created a Section on Pediatric Dentistry in 1999. In 2002 the AAP launched an Oral Health Initiative with funding from MCHB to launch collaborative training and outreach activities, including a monthly Pediatric Oral Health E-Newsletter with valuable oral health information for health care professionals. Working with its Section on Pediatric Dentistry, the AAP approved a policy statement on early childhood caries and the need for early risk assessment before age one. In 2006, oral health was named one of AAP's top strategic priorities. In 2008, oral health became the topic of AAP's Peds21 symposium at their annual meeting. In 2008 the AAP also commissioned a pediatric update of the Surgeon General's Report on Oral Health, and National Summit on Children's Oral Health. In addition, since 2000 at least 50 of AAP's **Catch and Healthy Tomorrows** grants have addressed oral health issues.

Legislators. The single most cited reference backing proposed legislation on children's oral health has been the Surgeon General's Report. A number of states appear to have reached the tipping point in recognizing the oral health needs of children. Not only have states pursued Medicaid reforms and the development of new workforce models, but they have also collaborated with professional groups and others to expand oral health programs for low-income children. All states now include some dental benefits in SCHIP programs.

Oral health America's state "report cards" called attention to state level advances as well as lack of progress in some areas of oral health, including children's oral health.

Health literacy. In the broadest sense, these efforts can be seen as enhancing our collective oral health literacy – including non-dental health professionals, policymakers, patients and families and the general public. The attention to health literacy itself has grown since the Surgeon General's Report, aided by the release of the 2003 Institute of Medicine (IOM) report, *Health Literacy: A prescription to End Confusion* and the 2004 Agency for Health Care Quality's *Literacy and Health Outcomes: Understanding and improving health literacy*. The science of health literacy – now a focus of funding for NIDCR grants - and the lessons learned from these efforts can help us move oral health awareness toward the tipping point.

Action 2. Overcome Barriers by Replicating Effective Programs and Proven Efforts in Relation to Oral Health Care for Young Children

Barriers to oral health care for young children reflect, to a large degree, the lack of financial resources and the shortage of dentists to treat them. In turn, these barriers are compounded by geographic isolation (poor neighborhoods, rural areas); limitations in health literacy and/or differing cultural values regarding health; language or educational limitations in understanding eligibility for public health programs; and the need for “wrap-around” services for families, such as help with transportation, child care and appointment reminders. Some local, state and federal programs and policies targeting one or more of these barriers were already in place prior to the Surgeon General’s Report, but they have grown since (see also Action 5).

Insurance. Children are still more than twice as likely to lack dental as medical insurance. While coverage for dental services for *poor* children has been required since 1989 under the Early Periodic Screening, Diagnostic, and Treatment benefit in **Medicaid**, inadequate funding, and excessive paperwork have resulted in only modest utilization. The number of Medicaid-enrolled children with at least one yearly dental visit was 27% in 2000 and 33% in 2006. Some of that improvement reflects the advent of the 1997 State Children’s Health Insurance Program (**SCHIP**). SCHIP is a federal-state initiative that expands health coverage for low-income children not eligible for Medicaid. States could either create separate SCHIP programs or augment Medicaid programs. Currently, all SCHIP programs include dental benefits. While data reporting is spotty, where data is available it indicates that SCHIP has helped boost low-income children’s utilization rates under public programs over the decade from 18% to 41%. Nevertheless, disparities persist. Data from the Medical Expenditures Panel Survey, which tracks a cross-section of families over a full year, found that about 1/3 of poor and low-income children had at least one dental visit in 2004 compared to nearly half of middle-income and 62% of high-income children. A similar gap in dental visits distinguished black and Hispanic children from white children. **Moreover, Medicaid and SCHIP are in jeopardy** because of fiscal shortages at state and federal levels. State initiatives to increase payments and reduce paperwork have increased the number of private dentists willing to treat Medicaid/SCHIP patients, but the percent remains low in many states. In Maryland, the death of 12-year-old Deamonte Driver from an untreated tooth abscess prompted the state legislature to increase Medicaid reimbursements to dentists in hopes that this would improve access. In other states, lawsuits led to enhanced Medicaid dental program benefits (e.g., Texas).

Expanding the safety net. A change in policy in 2000, mandating that new **Federally Qualified Health Centers** provide dental services, has helped expand the public safety net for children and adults, although centers report many dentist vacancies. More states now report EEC prevention programs in children receiving fluoride varnishes and school-based dental sealant programs. **Volunteerism.** Local and state dental associations and other groups often provide free oral care to children. The American Dental Association’s (ADA) *Give Kids a Smile Day* is a nationwide one-day outreach effort providing free care to almost 500,000 children. Such efforts are praiseworthy, but efforts are needed to ensure follow-up and continuity of care.

New workforce models. New policies and collaborative efforts to overcome barriers to oral care for young and poor children include training and reimbursing primary care providers (e.g., pediatricians and family physicians) to provide preventive dental care for children. The **Into the Mouths of Babes** program, now statewide in North Carolina, is a case in point worthy of replication. (See description under Action 5).

Professional policies and rule reforms. Since 2000, the ADA and the American Academy of Pediatric Dentistry recommend that children have a dental exam by age 1. The American Academy of Pediatrics now recommends oral health risk assessments by 6-12 months from a qualified pediatric health care professional, with dental referrals as appropriate. Maryland and other state legislatures have also been moving to liberalize work rules to allow dental hygienists to provide more care for patients independently or in public health settings without direct supervision by dentists.

Dental public health infrastructure. Key to policies to promote oral health and prevent disease are the efforts of local, state, and federal dental public health personnel. Over the decade there has been some increase in staffing, in oral health plans developed, and in the number of State Dental Directors, enabling better surveillance and monitoring of oral health indicators and prevention programs (e.g., sealant and fluoride varnish applications). But data reporting is not always consistent, there is scant information on preschool children, and analysis of treatment data is hampered by a lack of dental diagnostic codes. Budgets and staffing remain small, hindering states’ abilities to expand preventive efforts for children.

Action 3. Build the Science Base and Accelerate Science Transfer – in relation to the oral health of young children

Dental Caries: Since 2000 national surveys (NHANES) show improvements in oral health for older children and adolescents—e.g., decreased caries experience, but *increased* caries experience in 2 to 5 year-olds with serious short and long-term health implications: risk for caries in permanent teeth, spread of infection, impact on growth, lower quality of life and more school absences. Caries remains the most common chronic childhood disease. The move toward evidence-based care in dentistry has added momentum to the goal of translating the newest science on caries into practice. New paradigms are emerging to unravel the complex health determinants underlying disparities, and means to address them.

Assessment of risk. Risk of early childhood caries (ECC) is greatest for poor and minority children in which disease is largely untreated because of barriers to care. Children with early transmission of cariogenic bacteria from caretakers are at risk for more severe disease. Research has identified genes and salivary factors associated with caries susceptibility or resistance, and work continues on developing precise risk assessment tools. But simple approaches (history of caries in caretakers and siblings, observable dental plaque, nutritional habits) can utilize non-dentist health professionals for prevention in young children.

Management. Caries management is moving toward medical rather than surgical approaches. The focus is on proper diet and use of fluoride in water, in toothpaste, and tooth varnishes, and utilization of dental sealants. Motivational interviewing is a promising counseling approach to support behavioral changes in mothers to reduce colonization of cariogenic bacteria such as mutans streptococci (MS) and improve diet. Research such as that conducted at NIDCR-supported Disparities Research Centers is aimed at the complex interacting factors contributing to health disparities and testing ways to resolve them.

Prevention research. Research continues on other preventives: adhesive sealants (potential use on primary molars), use of xylitol in mothers (to reduce transmission of cariogenic bacteria), bacterial replacement therapies, antimicrobials and peptide targeting cariogenic bacteria, and caries vaccines.

Nutrition. Diet and dietary habits such as frequent snacking play a role in caries and in the growing epidemic of obesity in America. High energy, high calorie but poor nutrient carbohydrate foods are cheap, convenient, and more readily available in poor communities than fresh produce-stocked supermarkets. They are the ideal substrate for caries bacteria.

Environmental/home influences. Poor food choices combined with using food to reward a child can contribute to dental caries and obesity. Parents are the role models for food selection and behavior. Cultural beliefs that a healthy child is a chubby one may compound the obesity problem.

Children with special health care needs (CSHCN). 15-18% of America's children have special needs, which may make them more vulnerable to oral diseases—which, in turn, may exacerbate their systemic conditions. Because of the high costs of care and many non-reimbursable expenses for CSHCN, their families are more likely to be dependent on a public insurance program, itself a risk factor access problems. Parents surveyed indicate that dental care is their children's most common unmet health need. CSHCN require comprehensive, coordinated, family-centered healthcare from medical, dental and/or health homes.

Epidemiology and dental needs of CSHCN. Data on the range and number of oral diseases and conditions experienced by CSHCN are not generally available since most conditions are rare. The lack of diagnostic dental codes also precludes identifying these children's dental needs and costs.

Birth Defects and Craniofacial Conditions. Information is available for a subset of CSHCN: In 2007, 186,000 children were born with birth defects, 1/3 of which affect the craniofacial complex. This includes 7,000 with cleft lip or palate. Treatment for clefts and other syndromes is generally lifelong and costly, requiring an interdisciplinary team of specialists and multiple hospital stays.

Genetics. By 2000, the gene mutations associated with dental anomalies (dentinogenesis and amelogenesis imperfecta) were known, as well as 21 of the 70 known heritable craniofacial malformation syndromes. By 2007, mutations for an additional 17 syndromes were found. The research has revealed the complexity of craniofacial development. At least 7 genes may be involved in clefting, for example, while the mutations associated with one or another complex syndrome may also turn up in an isolated case of cleft lip or palate, reflecting different degrees of gene expression or penetrance. This level of unpredictability complicates decision-making for parents opting for prenatal diagnostic testing, and may create ethical quandaries for craniofacial teams.

Action 4. Increase Oral Health Workforce Diversity, Capacity and Flexibility – to Enhance the Care of Young Children

The Surgeon General's Report and the National Call to Action identified shortages in the dental workforce in all aspects of the profession: research, education, public health, and practice. The reports indicated that while there were more women entering the profession, minorities remain under-represented. In addition, there was maldistribution, with fewer dentists in poor or rural areas. Since the Surgeon General's Report, two Institute of Medicine reports, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (2002)* and *Missing Persons: Minorities in the Health Professions (2004)* have added urgency to the goal of diversifying the workforce.

Diversity. Only modest gains in minority enrollments have been achieved since 2000. Comparing the class of 1999-2000 to 2006-2007: Black enrollments increased from 810 (4.7%) to 1,113 (5.8%); Hispanic, from 913 (5.3%) to 1,123 (5.9%) and Native Americans, from 99 (0.6%) to 111 (0.6%). Diversity efforts include, foundation-supported pipeline programs, pre-admission academic preparedness programs, scholarships, and loan repayment incentives. They are making a difference, but slowly.

Shortage areas. In the last 15 years U.S. areas experiencing dental health professional shortages have increased from 792 to more than 3,700; 8,500 dentists are needed to fill these needs.

Current face of dentistry. Older dentists are retiring, many are not being replaced, especially in rural areas; more are working part-time; many are choosing cosmetic-type practices. Thus, while dental applications are up, the supply of dentists is not commensurate with population growth, particularly in relation to young children. Dental faculty vacancies have increased from 272 in 2000 to 365 in 2006. Applications in pediatric dentistry are up. *However 45% of pediatric dentists and most general dentists (who treat the majority of children) do not accept Medicaid patients.*

Dental public health infrastructure and safety net. More states now report school-based dental sealant programs and early childhood caries prevention efforts, along with a dramatic increase in children receiving fluoride varnishes. Dental services have expanded in federally qualified health centers, almost doubling the dental patients seen from 2000 to 2006, but the dentist vacancy rate is high. The number of professionals board certified in dental public health has remained low, and not kept up with programmatic needs or increasing size of the underserved population.

Dental Curriculum changes. The American Dental Education Association's (ADEA) Commission for Curriculum Innovation proposes enhancing cultural competence and professionalism, which are important for pediatric care. Other curricula innovations are aimed at improving integration between dentistry and medicine, preparing dental students for life-long learning and critical thinking. Community-based educational experiences are aimed at improving students' capacity and willingness to meet the needs of underserved patients. Washington State's Access to Baby and Child Dentistry (ABCD) trains general dentists to care for young Medicaid-eligible children. Initiated in the mid-90's, it has been a success and is being expanded and replicated in other states.

Medical Competence. There is a growing movement toward greater integration of dentistry and medicine. The American Association of Medical Colleges recommends medical students learn more about oral health. To enhance the ability of physicians to provide preventive oral health treatments, the American Academy of Pediatrics and the Society of Teachers of Family Medicine Group on Oral Health, have developed and tested toolkits, preceptor programs, and training modules. Oral health questions are now asked on pediatric board exams; and in 2006 a structured hands-on oral health experience became a requirement for family medicine residency accreditation. The "Into the Mouth of Babes" statewide project in North Carolina, has trained more than 3,000 physicians to deliver preventive oral health care to infants birth to 3 yrs. In 2007 almost 60,000 children received this care in some 137,000 visits. Preliminary research shows improved oral health and increased receipt of dental services as well.

Mid-level practitioner training. There has been a trend - not without controversy—to develop mid-level practitioners to provide preventive and routine restorative care. The American Dental Association and American Dental Hygiene Association have each proposed models. In 2008, the Minnesota legislature enacted a law to allow oral care by an "Oral Health Practitioner" (credentials to be defined), who would work in an underserved area. In Alaska, Dental Health Aide Therapists (DHATs) are being trained to care for Native children in remote villages, based on a model developed in New Zealand in the 1920's.

Action 5. Increase Collaborations

The Surgeon General's Report concluded that the collective talents of the public and private sectors, advocacy groups, and concerned citizens were "vital if America is not just to reduce, but to eliminate, health disparities." The follow-up conference, *The Face of a Child* and the regional meetings held in connection with the *National Call to Action* demonstrated that the collaborative movement had taken off. Following are a few of the many collaborations now targeting children's oral health and access to care.

National Organizations. Oral Health America's **Smiles Across America, with significant funding from the dental industry**, supports school oral health care programs in 8 U.S. regions.

Professional Associations. The **Community Access to Child Health and Healthy Tomorrows** grant programs offered by the American Academy of Pediatrics (AAP) have supported collaborative community-based oral health projects, both large and small. They have been funded by MCHB and private entities including the American Academy of Pediatric Dentistry (AAPD) Foundation. The AAP has an **Oral Health Initiative** funded by MCHB, with related activities supported by the American Dental Association Foundation (ADAF) and others. In 2007 the Office of Head Start announced funding to the AAPD for a **Head Start Dental Home Initiative**. The AAPD and AAP have worked on many collaborative projects, including the concept of a **dental home** where children would receive comprehensive, accessible, coordinated, and family-centered care. The **Give Kids a Smile day** is a national pro bono effort led by the ADA and funded by the dental industry in collaboration with community groups and private dentists.

Academic/research efforts. To respond to the needs of underserved communities, dental schools have created community-based programs to enhance students' experiences with underserved groups. This trend was boosted with funding from the Robert Wood Johnson, Kellogg Foundations and the California Endowment to launch the **Pipeline, Profession & Practice: Community-Based Dental Education** program at 16 dental schools. The Arizona School of Dentistry and Oral Health and the University of Washington School of Dentistry's state-funded **RIDE** program (Regional Initiatives in Dental Education) emphasize community-based training. **Forsythkids** is a collaboration involving The Forsyth Institute, local/state health departments, the Massachusetts legislature and private entities. The program provides comprehensive dental care in selected elementary schools. Also since 2000, the NIDCR-funded **Centers for Research to Reduce Oral Health Disparities and Practice-Based Research** networks partner research institutions with community entities including dental practitioners to address key research questions - many related to children.

Statewide coalitions and efforts. The Centers for Disease Control and Prevention has supported efforts to establish and broaden state oral health coalitions, now in place in most states, which focus on improving access to oral health services, reducing disparities, and promoting fluoridation and other preventive efforts. Collaborations of many groups are responsible for state Medicaid reforms in Michigan, Tennessee and Alabama. **Watch Your Mouth** is an example of a statewide awareness campaign launched after 2000, which grew into Citizen's Watch for Oral Health, a group advocating for policy change. The group is led by the Washington Dental Service Foundation (WDSF) with multiple public and private partners. Successes include expanded reimbursements for physicians providing dental preventive services to children, defeat of anti-fluoridation legislation, and expansion of services to Medicaid-enrolled children. **First Smiles** is California's multi-partnered education and training project. It is geared to primary care professionals, enabling them to provide oral care to preschoolers, including children with special needs. The program has led to the integration of dental visits at WIC Centers. **Oral Health Kansas** is a statewide coalition of 200 members dedicated to policy change. Programs include training "Dental Champions," developing school oral health guidelines and engaging the media. North Carolina's **Into the Mouth of Babies** began as a pilot project in 2001 and has grown to a statewide program bringing preventive oral care to children under 3 by training primary care physicians. The project is a collaboration involving the Medicaid program and professional societies.

Insurance partnerships. Private member companies of the Delta Dental Plans Association collaborate with public health departments, state dental associations and others to bring dental services to underserved children. Examples include the **Medicaid Healthy Kids Program in Michigan**, the **ABCD** programs in Washington, **Smilemobiles** and other efforts. In Utah, the United Way supports **Sealants for Smiles**, a charity providing oral health education and application of dental sealants to children in low-income elementary schools. Dental Select is the largest dental insurer in Utah and donates all administrative expenses for the program.

Healthy People 2010. Selected oral health objectives targeting children/adolescents: Aqua – progress toward goal; violet – exceeded goal; yellow – moved away from goal.

Number	Objective	Baseline	2004 estimate	HP 2010 Target
21-1	Reduce the proportion of children and adolescents who have dental caries in their primary and permanent teeth			
a	2-4 year olds	18%	24%	11%
b	6-8 year olds	52%	53%	42%
c	15 year olds	61%	56%	51%
21-2	Reduce the proportion of children, adolescents and adults with untreated decay			
a	2-4 year olds	16%	19%	9%
b	6-8 year olds	28%	29%	21%
c	15 year olds	20%	18%	15%
21-8	Increase the proportion of children who have received dental sealants on their molar teeth			
	8 year olds	23%	32%	50%
	14 year olds	15%	21%	50%
21-9	Increase the proportion of U.S. population served by community water systems with optimally fluoridated water	62%	69%	75%
21-10	Increase the proportion of children 2-17 years who use the oral care system each year	48%	52%	56%
	Children at first school experience	48%	55%	NA
21-12	Increase the proportion of low income and adolescents who received any preventive dental service in the past year	25%	31%	66%
21-13a	Increase the proportion of school-based health centers with an oral health component-dental sealants	12%	NA	15%
21-13b	Increase the proportion of school-based health centers with an oral health component-dental care	9%	NA	11%
21-14	Increase the proportion of local health departments and community-based health centers, including community migrant, and homeless health centers that have an oral health component	52%	69%-2004 70%-2006	75%
21-15	Increase the number of States and the District of Columbia that have a system for recording and referring infants and children with cleft lips, cleft palates, and other CF anomalies to craniofacial anomaly rehabilitative teams	16%	32% -2006	51%
21-16	Increase the number of States and District of Columbia that have an oral health craniofacial health surveillance system	0	NA	51%
21-17 a	State and local dental programs directed by public health professionals (of 191 programs)	39	51	41
21-17b	IHS & Tribal dental programs directed by PH professionals. (out of 32 programs)	9	8	9