



ABOUT TRENDNOTES

TRENDNOTES, published semi-annually by The National Oral Health Policy Center, is designed to highlight emerging trends in children's oral health and promote policies and programmatic solutions that are grounded in evidence-based research and practice. It focuses policymakers' attention on the trends, opportunities and options to improve oral health for *all* children at lower cost through the best use of prevention, disease management, care coordination, and maximized resources.

This issue of TRENDNOTES outlines strategies to sustain and expand childhood dental caries prevention activities at a time when many states are facing significant fiscal shortfalls and making cuts to public health and health care programs. These strategies are critical components of a comprehensive system of care at any time, but even more so when states are facing numerous challenges to maintaining advancements in children's oral health.

Next TRENDNOTE: Health Care Reform

The next issue of TRENDNOTES will include a more detailed and systematic analysis of the oral health provisions included in **Health Care Reform**, and its implications for the work of state policymakers in promoting oral health and preventing dental caries in children.

Strategies for Sustaining and Enhancing Prevention of Childhood Tooth Decay during Challenging Times

Trend

In response to diminishing state budgets and fiscal reserves, many states are being forced to make cutbacks in public health and health care services. These cuts are being made at a time when greater numbers of children and families are in need, particularly for dental care services. The public health and dental communities have made significant strides in preventing childhood dental caries. These advancements include increases in community water fluoridation, greater recognition among parents about the benefits of good oral health practices in young children, reimbursement of fluoride varnish by non-dental providers, and improvements to key federal laws and policies such as those represented in many provisions of the recently reauthorized Children's Health Insurance Program (CHIP).

Furthermore the new Health Care Reform law includes numerous provisions to promote oral health and prevent dental caries in children based on a systems approach.¹ Under the new law, Congress mandated pediatric dental coverage and supported this mandate by underscoring the importance of a comprehensive systems approach to oral health. This approach includes provisions regarding the dental infrastructure, prevention, treatment, and surveillance. Support to carry out these provisions will become available to states as appropriations are made and programs are formulated by federal agencies. Perhaps never before has the need and opportunity for sustaining and enhancing oral health programs and services been more paramount. The strategies for doing so are numerous and in many cases, can involve minimal investments from states and communities.

Policy Solutions

Strategies for sustaining and expanding efforts aimed at the prevention of dental caries during challenging fiscal times include:

- Targeting interventions to populations for whom small investments have significant pay-offs.
- Ensuring oral health promotion and dental caries prevention are part of system reforms (e.g., health care, early childhood, child nutrition) at the federal and state level.
- Integrating oral health promotion and dental caries prevention into policymaking and programming in other child and family systems (e.g., primary care, child care, Head Start, and the WIC Nutrition Program) to maximize efforts on children's access to preventive dental care.
- Strengthening policies that can improve children's access to dental care services, especially preventive services.
- Creating new sources of revenue (e.g., state soda tax) for preventive dental care interventions.
- Improving oral health surveillance and reporting.

State Budget Cuts Threaten Advancements in Childhood Dental Caries Prevention



States are experiencing significant fiscal constraints due to the recession and declines in state revenues. In the last two years alone, at least 44 states plus the District of Columbia enacted budget cuts in all areas of state services; 29 of these states made cuts to public health and health care services.² By all accounts, these budget cuts are expected to increase for the 2011 fiscal year and to continue to significantly impact health and human services, including dental coverage and preventive dental services for children and families, pregnant women and adults. For example, California recently eliminated the California Children's Dental Disease Prevention Program (CCDDPP) because of the state's severe economic crisis in FY 2009-10. CCDDPP is the state's comprehensive school-based prevention program which operates 33 programs in 31 counties and serves approximately 300,000 California preschool and elementary school children annually.³ As of January 2010, Arizona has placed an enrollment cap on its KidsCare Program, the state's CHIP program, due to a lack of funding.⁴

Cuts to health and human services in states and at the local level are being made at a time when greater numbers of children and families are in need, particularly for dental care services. Overall, most states and communities are experiencing dramatic demographic changes with greater numbers of families living in or near poverty⁵ and increased numbers of those who are uninsured or underinsured.⁶ Tooth decay is the number one chronic condition of childhood and is on the rise among young children for the first time in 40 years.⁷ Low-income and minority children are more likely to experience chronic tooth decay but less likely to access preventive dental care services than white children and children with higher incomes.^{8, 9, 10} Taken together, there is the potential for a generation of low-income children to have even worse access to dental care and poorer health outcomes than their predecessors.^{11, 12}

The public health and dental communities have made significant strides in promoting the benefits of good oral health and in preventing childhood dental caries. These advances include:

- Continued increases in the number of people and communities that benefit from community water fluoridation.¹³
- Recognition of the benefits of dental sealant programs and fluoride varnish programs in preventing tooth decay, particularly for children at increased risk for dental caries (e.g., low-income children), and proven cost savings of dental sealants.¹⁴
- Greater awareness among parents about the importance of good oral health practices for children.
- Increased awareness of the link between oral and systemic health, especially during pregnancy.¹⁵
- Successful advocacy for improvements to key federal health care laws and policies including provisions under Health Care Reform (Patient Protection and Affordable Care Act) and Children's Health Insurance Program Reauthorization Act (CHIPRA) that together require dental coverage and promote an integrated approach to both prevention and treatment.

Perhaps never before has the need for sustaining and enhancing dental care policy and practice been more paramount. In fact, the situation calls for a renewed focus on the core elements of a comprehensive system to prevent and manage childhood tooth decay. It also necessitates re-visiting proven strategies and identifying new approaches for oral health promotion and dental caries prevention. Some of those strategies and selected state examples are highlighted in the following pages.

Key Facts about Childhood Tooth Decay

1. *Childhood tooth decay is a significant chronic disease.*

Tooth decay is the number one chronic health condition of childhood and is on the rise among young children for the first time in 40 years.

2. *Tooth decay impacts child health and development, self-esteem, and learning.*

Children who experience chronic tooth decay and related pain and infection can suffer from growth and development disturbance, speech problems, lost school days, poor self-esteem, unhealthy adult teeth and high costs for dental treatment throughout life.

3. *Low-income children are disproportionately affected by tooth decay.*

Over three-quarters of untreated caries in permanent teeth is found in roughly 25 percent of children who are 5 to 17 years old, mostly low-income children. Most children experience little risk for dental caries and few cavities; however, low-income and minority children experience the highest rates of dental caries and the lowest rates of dental care.

4. *Dental caries is preventable and manageable.*

Cavities are the outcome of an infectious and transmissible disease called dental caries that is preventable early in life and can be managed without expensive interventions.

5. *Untreated dental cavities are costly.*

Annual costs for dental services (all ages) were \$95.3 billion in 2007 and are expected to increase in the next decade. The costs to Medicaid are disproportionately higher than those for children with private insurance coverage.

6. *Proven prevention interventions can save costs.*

Dental costs for children enrolled in Medicaid for five continuous years who have their first preventive dental visit by age one are nearly 40 percent less (\$263 compared to \$447) than for children who receive their first dental visit after age one. For every \$1 invested in community water fluoridation \$38 in dental treatment costs is saved. School-based dental sealant programs save costs when they are delivered to children at high-risk for tooth decay.

7. *Dental caries interventions should be risk-based.*

For greatest efficiency, prevention initiatives combined with intensive intervention efforts should be targeted to those children at high-risk for the disease.

Sources: Sources: Dye BA, Tan S, Smith V, Lewis BG, Barker LK, Thornton-Evans G, et al. Trends in oral health status: United States, 1988-1994 and 1999-2004. National Center for Health Statistics. Vital Health Stat 11(248) 2007. Centers for Medicare and Medicaid Services, US Department of Health and Human Services. National Health Expenditures by type of service and source of funds, CY 1960-2007 (ZIP, 39 KB). Accessed 4/15/10 at http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage; Savage MF, Lee JY, Kotch JB, Vann WF Jr. Early preventive dental visits: effects on subsequent utilization and costs. Pediatrics 2004;114:e418-23; Centers for Disease Control and Prevention. Oral Health Resources Fact Sheet. Cost Savings of Community Water Fluoridation. Accessed 4/15/10 at: http://www.cdc.gov/fluoridation/fact_sheets/cost.htm; Health. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Accessed 4/15/10 at www.oralhealth@cdc.gov.

The Core Elements of a Comprehensive System of Care Need to be Sustained

Numerous national reports, publications and guidelines have called for a comprehensive system to promote optimal oral health in children and to prevent early childhood dental caries.^{16, 17, 18, 19, 20} While their frameworks vary, several key themes and core system components are evident. They include the following:

- **Prevention:** Promoting optimal oral health in children at an early age by establishing a dental home at 1 year of age, identifying high-risk children and developing individual plans tailored to their needs, and educating pregnant women, new moms and other caregivers about the importance of children's oral health and how to prevent the transmission of dental caries.
- **Financing Mechanisms:** Financing mechanisms for dental care programs and services, including comprehensive public and private dental coverage, are in place and sufficient to adequately meet the needs of pregnant women and children and to engage dentists and other providers in delivering dental care to all children, particularly low-income and other high-risk children, including children with special health care needs.
- **Work Force Development:** Building and maintaining a well-trained dental workforce with sufficient capacity to meet the needs of children and their families, and engaging non-dental health care providers such as pediatricians, family physicians, and nurse practitioners in preventive dental care, including anticipatory guidance, fluoride varnish application.
- **Linkages with Child-Serving Programs and Systems:** Creating linkages between private and public programs and systems, including primary care, child care, schools, Head Start, and WIC that serve children and their families so that children's access to preventive dental services can be improved and systems are maximized.
- **Oral Health Surveillance to Monitor Child Health Status and Improve Quality:** Assuring that data systems and infrastructure (e.g., staffing, and safety net facilities) are in place to track, monitor and report on dental services and oral health outcomes to improve the quality of prevention programs and dental care services.

Since the landmark 2000 Surgeon General's Report *Oral Health in America* was released, leaders at the federal, state and local levels have made significant advancements in improving programs, services and supports for children's oral health. While the core components of a comprehensive system for preventing childhood dental caries are well known, much more work remains to be done. As such, policymakers remain interested in tracking the oral health status of children. There are a variety of efforts to address this including the National Oral Health Surveillance System (NOHSS),

What is Childhood Dental Caries?

Dental caries is a chronic, infectious disease caused by bacteria that are found in the mouth and transmissible from caretakers, particularly mothers to children. The disease is typically established in the first few years of a child's life, with teeth being potentially susceptible to decay soon after they first appear in the mouth. The occurrence of tooth decay before the age of six years—known as Early Childhood Caries (ECC)—is of particular concern because past caries experience, including having cavities in childhood, is the best predictor of tooth decay across the lifespan. Dental caries is preventable and with appropriate early intervention and ongoing management, can actually be reversed. Preventive measures such as fluorides and dental sealants are instrumental in managing this disease and preventing cavities.

Sources: Exactly what is "Dental Caries"? Building a Definition from Research Washington, DC: Children's Dental Health Project. Morbidity and Mortality Weekly Report. Recommendations for using fluoride to prevent and control dental caries in the United States. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. August 17, 2001/50(RR14);1-42. August 17, 2001/50(RR14);1-42.

Healthy People 2010, state assessments, and foundation reports including a recent 'report card' by the Pew Charitable Trust. Additionally, the Health Care Reform law supports oral health surveillance efforts by improving the quality of surveillance data. For example, under the health reform bill oral health questions are now integrated into the core survey questions for the Pregnancy Risk Assessment and Monitoring System (PRAMS).



Strategies for Sustaining and Enhancing Dental Caries Prevention

While the budget crisis poses many threats and challenges to oral health programs at the state and local level, it can be an opportunity to re-focus efforts and realign investments for childhood dental caries prevention. Limited resources require that investments and interventions need to be focused on those areas of greatest need and overall potential for improving child oral health outcomes. Targeting limited resources where they can have the biggest impact on improving child outcomes makes good public health and public policy sense in general. This approach is even more necessary during challenging fiscal times because of the need to maximize and leverage limited funding.



Many states and communities continue to make advancements in dental caries prevention policy and practice despite fiscal constraints. These approaches include improvements in Medicaid reimbursement to pediatric medical providers for fluoride varnish application and integration of dental caries prevention activities in Head Start and WIC programs. While these activities are driven by the goal of improving policies and practices rather than a response to fiscal constraints, they are important areas for focus because of their potential to ensure the greatest return on investment of effort and funding.

States and communities will have their own unique approaches and internal and external considerations (e.g., priority needs, state budgets, political considerations) for identifying those policies and programs for ongoing investment and focus. The following strategies and related examples, while not exhaustive, highlight some important considerations for states and communities as they work to sustain and improve dental caries prevention initiatives with limited resources.

Target Interventions to Populations for Whom Small Investments have Significant Pay-Offs

A risk-based preventive approach to dental caries prevention recognizes that all children and their families need access to interventions that promote good oral health while acknowledging that some dental care interventions should be targeted to those children at highest risk for cavities. Risk-based interventions are not intended to displace cost effective public health approaches such as community water fluoridation that benefit entire communities. Instead, risk-based care can foster reallocation of current expenditures from excess care to more intense care of children at greatest risk for disease and in turn, save significant public and private expenditures.²¹ Also, when systems realign their efforts to a risk-based preventive approach they are consistent with broader efforts to serve the “whole child” and to better integrate efforts between child and family-serving systems.²²

Ensure Oral Health Promotion and Dental Caries Prevention are Part of System Reforms at the Federal and State Level

Reforms in health care, education, and early care and education systems provide a unique and important chance to sustain and expand children’s oral health promotion and dental caries prevention efforts. It is critical that a focus on oral health be well-integrated within these reforms as they are aimed at making long-term, systemic changes to many of the key systems that serve pregnant women, children and their families. Additionally, the window of opportunity to make such change may not occur again for many years.

Some of these changes, such as the Health Care Reform law, are getting much attention by the dental community because of their significant improvement in dental insurance coverage for children. However, not so visible but equally important are reforms to other key child-serving systems at the federal and state level such as early care and education (e.g., early childhood initiatives), education, and food and nutrition. These reforms can be an important catalyst for enhancements to preventive dental programs and services, integration between the key systems that serve children and their families, and improvements to overall public health interventions. See page 11 for highlights of key opportunities at the federal level.

What is a Risk-Based Approach to Childhood Dental Caries Prevention?

Most children experience little risk for dental caries and few cavities; however, some children experience high risk and extreme and consequential disease. In fact, dental expenditures for children reflect high costs for two groups: 1) a small group of children who need extensive care for the most severe consequences of dental caries; and 2) a large number of children who receive regular preventive care despite being at low risk for developing cavities. Risk-based preventive interventions maintain cost effective public health approaches such as community water fluoridation but also reallocate current expenditures from excess care to more intense care of children at greatest risk for disease.

For example, in a system that addressed dental caries as a preventable and manageable chronic disease, universal, well-established public health strategies designed to promote the importance of oral health and prevent dental caries transmission would be provided to all children. Children or populations deemed at high-risk for dental caries would receive a range of interventions including counseling and risk management to reduce further risk for dental caries progression. Finally, children or populations at high-risk and with early or advanced disease would be provided intensive and ongoing services to treat and reverse progression of the disease. These practices would be embedded in a comprehensive system of care that includes: comprehensive public and private dental coverage, linkages with child-serving programs and systems (e.g., primary care, child care, schools, Head Start, WIC), workforce development, dental tracking and monitoring, and quality improvement efforts.

Source: Better Health at Lower Costs: Policy Options for Managing Childhood Tooth Decay. Trend Note #1. Washington, DC: National Oral Health Policy Center, Children's Dental Health Project. October 2009.

- The work of **Colorado's Comprehensive Early Childhood Systems Building Initiative** resides within the Office of Lieutenant Governor Barbara O'Brien, a testament to its high-level visibility and support within state government. On February 11, 2010, Governor Ritter established an Early Childhood Leadership Commission by Executive Order. The 30-member commission will ensure and advance a comprehensive service delivery system for children birth to eight and their families; advise on creating better data systems that will inform policy, funding and accountability; improve the quality of and access to early childhood support services; and promote public-private and federal-state-local coordination to improve outcomes for children and their families. The work of the Initiative is driven by the Early Childhood Colorado Framework which is designed to help public and private partners at the state and community level advance their work for children and families using a common vision and

core goals. It is also intended to assist communities and individual sectors (e.g., health care, child care, schools) in aligning and integrating their work. Two of the Framework's core outcomes address children's oral health: 1) Increased access to preventive oral and medical health care, and 2) Increased knowledge of the importance of health and wellness (including nutrition, physical activity, medical, oral, and mental health).²³

The state budget crisis, while clearly challenging, can be an important catalyst for realigning systems to focus on dental caries as a chronic disease.

Integrate Oral Health Promotion and Dental Caries Prevention into Policymaking and Programming in Other Child and Family Systems

Contemporary practice and decades of research underscore the importance and benefits of reaching children and their families where they are most commonly found (e.g., schools, child care centers, primary care) and integrating interventions with existing efforts. By integrating programs and services, the effectiveness of efforts can be maximized, more children can be reached, families can find supports more readily, and duplication of effort can be reduced.²⁴ Additionally, there is growing evidence that this comprehensive approach results in improvements to child health and well-being outcomes.²⁵



Children, particularly young children and those with special health care needs and their families, come into contact with numerous programs and services in systems throughout childhood including health care, early care and education (e.g., child care, Head Start), education, and food and nutrition programs (e.g., WIC). Consequently, the opportunities for promoting oral health and preventing dental caries as part of broader efforts to improve child health and education outcomes are numerous. In fact, social workers, community health workers, health educators, child care providers, Head Start and WIC workers, as well as medical and dental providers, all have a role in raising awareness, improving oral health literacy, and ensuring early entry into a dental home.²⁶ Efforts to promote a medical home for children, improve quality standards in other child-serving systems (e.g., child care quality standards), and integrate dental caries prevention in WIC programs are just some examples of the many program and policy opportunities in other child and family systems.

- The **Klamath County (Oregon) Early Childhood Cavity Prevention Program (ECCPP)**, located in a rural county of approximately 70,000 people, integrates preventive oral health services for women enrolled in Medicaid and the WIC program and their children from birth to 2 years of age. Eligible pregnant women enrolled in the Oregon Health Plan, the state's Medicaid program, are identified by WIC staff or referred by other partners to the ECCP program. All program participants are assigned to an ECCPP dental provider and receive periodic home visits (prenatally and at six weeks, six months and one year post partum) from ECCP Program staff and dental hygiene students on oral health education topics and making the most of dental visits. Participants are also provided oral health tool kits containing age-

specific brochures and promotional materials, infant/toddler safety tooth brushes, child and adult tooth brushes, toothpaste with fluoride, and useful gifts such as “sippy” cups. Ninety percent of the pregnant women participating in the program had one or more untreated cavities with an average of six cavities. As a result of the ECCP program, oral health messages are now more consistent among the WIC and dental medical providers in the county and 93 percent of all participating infants reaching their second birthday were 100 percent cavity free. Children enrolled in the Program were 40 percent more likely to have no tooth decay than a comparative control group.²⁷ For more information contact: Marilyn Sutherland, Director, Klamath County Public Health at (541) 882-8846 ext. 3436 or msutherland@co.klamath.or.us.

- **School-Community Partnerships for Children's Oral Health** in West Virginia is a statewide initiative that was established in 2009 to promote comprehensive dental caries prevention through school-community partnerships in selected high-need counties throughout the state. The initiative is privately funded by the Appalachian Regional Commission and The Claude Worthington Benedum Foundation and is managed by the Marshall University School of Medicine. Marshall University provides training and technical assistance to community based organizations—health departments, community-based health centers, and an Area Health Education Center—in seventeen counties across the state that were awarded grants through this initiative. All projects offer the following services within the school setting: establishment of a dental home, sealants for 3rd and 6th graders, and a basic screening assessment.

As a result of this grant, Wood County, West Virginia expanded its school-based oral health program by offering dental sealants as a component of school-based preventive services. Using portable equipment in the schools, students receive an oral health assessment, cleaning, and fluoride varnish that are provided by the county health department's Public Health Practice Dental Hygienist. As needed, dental sealants are placed and arrangements made for follow up care. Private practice dentists provide services to the project on a volunteer basis.

Another grantee, Lincoln County which is located in an extremely rural area of the state, received funding to offer dental services through the local school-based health center (SBHC), operated by Lincoln Primary Care Center, Southern West Virginia Health System (LPCC)—a Federally Qualified Health Center. LPCC had operated numerous SBHCs in the county for several years but did not provide oral health services. This funding has enabled the FQHC to hire a Public



Health Dental Hygienist and provide dental homes to school-age children through partnerships with private dentists in the county.

Through the West Virginia program, over 1,000 children in six counties received an initial screening during the first three months of project implementation. Of these children:²⁸

- 46 percent had untreated decay,
- 49 percent were referred for treatment,
- 87 percent had no dental sealants present, and
- 49 percent had no dental home.

In addition to supporting the 17 county grantees, private foundation funding has enabled the Project to leverage public resources. The state's dental program director is a key member of the Project's oversight committee and the state dental program has provided dental equipment to the Project. For more information about School-Community Partnerships for Children's Oral Health in West Virginia, contact Bobbi Jo Muto, Marshall University School of Medicine, at: bjmuto.steele@marshall.edu.

Strengthen Policies that can Improve Children's Access to Dental Care Services

Expansions of dental care coverage for children hold much promise for improving oral health outcomes. Health Care Reform requires pediatric dental coverage as an integral covered benefit for plans sold in Health Exchanges. Yet, access to preventive dental care and treatment for children is problematic. The availability of pediatric dentists relative to general dentists is low²⁹ and few dentists participate actively in Medicaid.³⁰ Efforts to improve Medicaid reimbursement for dental care services are an important but insufficient strategy for increasing provider participation in Medicaid³¹ and they may be viewed by state policymakers as costly. Additional and less costly strategies for improving dentist participation include but are not limited to:³²

- contracting private dentists to federally qualified health centers as now allowed under federal CHIPRA statute,
- matching small "subsets" of children to local dentists who have specific interests in specific populations or dental conditions thereby creating niche dental homes, and
- creating a "dental home" program with local Head Start and Early Start programs.

In particular, reaching children where they are most commonly found capitalizes on the natural connections or access points to children and their families—an approach that is particularly essential for low-income families who have less access to preventive dental care programs and services



than their counterparts. It also expands opportunities for promoting oral health and intervening early by engaging those non-dental providers (e.g., pediatricians, child care providers) who have the most regular contact with children, particularly young children.

Many states are using a range of strategies to improve access to preventive dental services. This includes engaging primary care providers in dental caries prevention and developing models for linking dental care professionals to settings where children are most commonly found. For example in spite of the poor economic climate in states, 39 states now reimburse primary care providers for providing preventive oral health care to children; this number reflects an increase in states since 2008.^{33, 34, 35} Nearly all of these states reimburse primary care providers for applying fluoride varnish—a preventive intervention that has been shown to reduce risk for early childhood caries.³⁶

- **AmeriChoice** in New Jersey reimburses primary care medical providers for oral health screening, preventive counseling, and fluoride varnish services to young children and provides a financial incentive for completing a timely referral (within 120 days) to a pediatric dentist. AmeriChoice prepares these primary care medical providers through an on-line distance learning program which then qualifies them for dental service reimbursement. Through this program, the company reports that more than half of young children were successfully referred for ongoing primary dental care.³⁷ For more information contact John Luther at: John.Luther@optumhealth.com.

- The **Head Start Dental Home Initiative** is a partnership between the American Academy of Pediatric Dentistry and Head Start Associations at the national, regional, state, and local level to develop a national network of dentists to link Head Start Children to dental homes. The initiative is creating a national network of pediatric dentists and general dentists who will provide comprehensive care for Head Start (HS) and Early Head Start (EHS) children; train teams of dentists and HS personnel in optimal oral health care practices; and assist HS programs in obtaining comprehensive services to meet the full range of HS children's oral health needs. This partnership will also provide parents, caregivers and HS staff with the latest evidence-based information on how they can help prevent tooth decay and establish a foundation for a lifetime of oral health. For more information about the Initiative and project updates visit the Initiative's website at: <http://www.aapd.org/headstart/>.
- **Kansas Cavity Free Kids** is a statewide program that was initiated in March 2008 by the Kansas Head Start Association to improve the oral health of pregnant women and young children by integrating preventive oral health education and clinical services into existing systems where pregnant women and young children can be found. These systems include: Head Start programs, health departments, child care centers and home visiting programs. Funded by the Delta Dental Foundation and the United Methodist Health Ministry Fund, the program uses state insurance to reimburse community-based dental hygienists to provide clinical services (e.g., risk assessments, clinical assessments, anticipatory guidance, prophylaxis, and fluoride varnish) to pregnant women and young children in five underserved geographic areas across the state of Kansas. The program has also developed and identified education tools (e.g., oral health curriculum and supplemental materials) and provides training for classroom educators, home visitors, and others who work closely with pregnant women and parents of children from birth to age five. Private foundation funding has been instrumental in establishing the program. Program leaders are collaborating with the Kansas State Bureau of Oral Health on a federal grant that would help extend the program to ensure its sustainability. For more information contact Kathy Hunt at khunt@ksheadstart.org.

Finally, with the passage of Health Care Reform states also have new opportunities for strengthening the oral health workforce. The Act increases training for traditional dental providers (e.g., dentists and dental hygienists) from \$15 million to \$30 million and broadens its support. It also provides \$4 million per year (\$20 million over 5 years) to establish an Alternative Dental Care Provider Demonstration Grant program

to develop and implement demonstration projects for mid-level dental providers in 15 sites over a five-year period beginning in 2012. Included are new mid-level providers, some of which have already been developed and advanced by the American Dental Association and the American Dental Hygienists' Association.³⁸ Such new mid-level providers may hold promise to increase efficiency and cost-effectiveness. Because these demonstrations are required to be compliant with State Practice Acts, state policymakers will need to ensure that their State Practice Acts can accommodate new mid-level providers in order to take advantage of these grants or that allow demonstrations as in California

- The **California Health Workforce Pilot Projects (HWPP)** program allows organizations to test, demonstrate, and evaluate new or expanded roles for healthcare professionals, or new healthcare delivery alternatives before changes in licensing laws are made by the California Legislature. Various organizations use HWPPs to study the potential expansion of a profession's scope of practice to:
 - facilitate better access to healthcare;
 - expand and encourage workforce development;
 - demonstrate, test and evaluate new or expanded roles for healthcare professionals or new healthcare delivery alternatives; and
 - help inform the Legislature when considering changes to existing legislation in the Business and Professions code.

For more information see: <http://www.oshpd.ca.gov/HWDD/HWPP.html>.

In spite of the poor economic climate in states, 39 states now reimburse primary care providers for providing preventive oral health care to children; this number reflects an increase in states since 2008.

Create New Sources of Revenue for Preventive Dental Care Interventions

With the fiscal crisis and downturn in revenues, many states are considering a range of sources to generate new revenue overall and in particular, to finance health, education and social service programs. Among the most frequently proposed options by public health authorities are "sin" taxes—taxes placed on items that have a negative impact on the public's health (e.g., tobacco, alcohol, sugar-sweetened beverages). Consumption of regular soda, powdered sugared beverages, and juice drinks is associated

with increased risk for dental caries.³⁹ Consumption of sugar-sweetened beverages has been linked to risks for obesity, diabetes and heart disease.⁴⁰ As such, advocates and leaders in the nutrition and dental communities have argued for the taxing of soft drinks to reduce consumption⁴¹,⁴² thereby minimizing children's risk for these and other chronic diseases and to generate revenue for dental public health interventions. For instance, a national tax of 1 cent per ounce on sugar-sweetened beverages would raise \$14.9 billion nationwide in the first year alone.⁴³ State sales "soda tax" revenues range from \$222 million in Alabama to \$320 million in Massachusetts.⁴⁴



Taxing of sugar-sweetened beverages (e.g., soft drinks) is not without its challenges. Thirty-three states have sales taxes on soft drinks but according to a recent report, they are too small to affect consumption, consumers do not know they exist, and revenues are not always used for public health interventions.⁴⁵ Colorado recently passed a 2.9 percent sales tax on soda and candy, among other taxes, as part of an effort to close a \$1.5 billion shortfall in the state's budget.⁴⁶ Finally, tax increases are generally unpopular with the general public and when it comes to soft drink taxes, with specific constituencies such as the beverage and restaurant association lobbies. For example, Maine recently repealed its beverage tax in 2008 in an effort led by a state coalition with strong involvement from the Maine beverage and restaurant lobbies.⁴⁷

Nonetheless, these taxes are one important potential source of new revenue for dental prevention interventions in states and communities. West Virginia recently proposed a 1-cent tax increase on soft drinks to help fund oral health programs as outlined in a five-year strategic plan developed by the state Oral Health Advisory Board and the Department of Health and Human Resources with help from a Benedum Foundation grant.

- **Two Cents for Tooth Sense** is a legislative campaign sponsored by the Wisconsin Dental Association to generate state revenue for increasing dental care reimbursement rates under Medicaid and funding dental health education projects at the university level and in public health. The campaign proposes a tax of

two dollars per gallon of soft drink syrup and 21 cents per gallon of bottled soft drinks or soft drinks produced from powder. The estimated impact is less than two cents per 12-ounce can of soda (or "Two Cents for Tooth Sense™") and could generate approximately \$70 million in additional revenue each year.⁴⁸ Funds would be placed in trust for the specific purpose of reimbursing Medicaid dental procedures. Any Tooth Cents™ revenue not used to improve the Medicaid dental program would be expended to support dental education projects and public health groups.⁴⁹ For more information visit: <http://www.wda.org/categories/8-community-activities/subcategories/68-access-to-dental-care/documents/89-medicaid-two-cents-for-tooth-sense->.

Improve Oral Health Surveillance and Reporting

Data on children's oral health status, access to dental care programs and services, and oral health outcomes is an essential element of a comprehensive system of care. It provides an important picture of how children, particularly low-income children, are faring and helps pinpoint areas for improvement. Comprehensive state and county level data can provide critical information to dental program administrators, policymakers, and other leaders about the oral health status of children, the impact of investments in dental care programs and services on child health, and areas for quality improvement.

During challenging fiscal times, this information becomes even more essential. It can be used to help educate policymakers about the importance of dental caries interventions to child health, identify the impact of cuts to dental care programs in 'real time' (e.g., emergency department visits for preventable dental conditions), and to support efforts targeting limited resources. As such, dental surveillance and reporting efforts, while oftentimes costly to establish up front, are an important cost-saving measure for states and communities in the long run.



Congress recognized the importance of assessing the impact of preventive dental services at the state level through oral health surveillance and reporting provisions that were passed in Health Care Reform. The Act includes provisions to update and improve oral health surveillance and reporting, including requirements that all states participate in the National Oral Health Surveillance System (see below) and mandate oral health inclusion in Pregnancy Risk Assessment and Monitoring System (PRAMS).⁵⁰

- The **National Oral Health Surveillance System (NOHSS)** is developed and maintained by the Association of State and Territorial Dental Directors (ASTDD) and the Centers for Disease Control and Prevention (CDC). NOHSS is designed to monitor the burden of oral disease, use of the health care delivery system, and the status of community water fluoridation on both a national and state level. ASTDD also provides training and assistance to states in use of the Basic Screening Survey, simple data collection tools used nationally to collect information for some of the indicators in the NOHSS. A new module targeting preschool populations was just added this past year so that states and communities can now collect standardized data on young children, particularly those in Head Start programs. In addition, since 1994 ASTDD has collected state level information from State Oral Health Programs annually that reflects access to care and programmatic information, especially in relation to sealant and fluoride programs. A subset of these data is available on a State Synopsis Website at: <http://apps.nccd.cdc.gov/synopses/>.
- The **California Healthcare Foundation** recently released a study, *Emergency Department Visits for Preventable Dental Conditions in California*, that provides data on the extent of emergency dental visits for preventable conditions in the state. The report includes recommendations for developing a comprehensive dental safety net in the state, improving insurance coverage, raising reimbursement rates, and promoting good oral health practices. This report details how community-level surveillance can be enhanced through monitoring of preventable emergency room visits. The report can be found at: <http://www.chcf.org/topics/view.cfm?itemID=133902>.



Federal Opportunities for Sustaining and Enhancing Childhood Dental Caries Prevention

Reforms to several federal programs provide important opportunities for sustaining and enhancing preventive programs and services for children, including dental caries prevention.

- Health Care Reform, The Patient Protection and Affordable Care Act (PPACA):** The new health care reform law, signed by President Obama on March 23, 2010, includes numerous provisions to promote oral health and prevent dental caries in children based on a systems approach. Under the new law, Congress mandated pediatric dental coverage and supported this mandate by underscoring the importance of a comprehensive systems approach to oral health. This approach includes provisions regarding the dental prevention, surveillance and treatment, including coverage, financing, workforce, and safety net. Support to carry out these provisions will become available to states as appropriations are made and programs are formulated by federal agencies. A more extensive summary and analysis of the Act will be the focus of TRENDNOTE #3.
- The Children's Health Insurance Program Reauthorization Act of 2009:** The new CHIP legislation includes several provisions related to children's oral health. It 1) requires that states continue to provide dental coverage for CHIP beneficiaries; 2) allows states to provide dental coverage that supplements commercial medical coverage for children who are otherwise eligible for CHIP but have private medical coverage; 3) requires that states report on CHIP dental program performance and sealant rates and; 4) establishes a requirement that parents of newborns be informed of risks for early childhood caries and its prevention.
- Child Nutrition and WIC Reauthorization Act:** This Act reauthorizes all of the federal school meal and nutrition programs that guarantee millions of low-income children healthy and nutritious meals and snacks daily to assist in improving their health and educational status. The Child Nutrition and WIC Reauthorization Act includes but is not limited to, the National School Lunch Program, School Breakfast Program, Child and Adult Care Food Program, Afterschool Snack and Meal Program, and WIC. These programs provide the nutritional foundation for many children and are an important access point to children and their families. For instance, programs such as WIC provide critical health education to pregnant and post-partum women and their children that may include oral health promotion strategies and information. While the programs are permanently authorized, Congress reviews them every five years and they are currently under review. The Reauthorization Act of 2004 mandated that school districts participating in any federally reimbursed school meal programs develop a local school wellness policy, including nutrition guidelines, by the beginning of the 2006–07 school year.
- The Early Learning Challenge Fund:** The Early Learning Challenge Fund is a national proposal to reform the country's early learning system. If passed by Congress, the initiative would be administered as a collaboration between the U.S. Department of Education and the Administration for Children and Families, U.S. Department of Health and Human Services (HHS). It would promote several components of a model early learning system including: 1) aligned early learning and development standards; 2) systems to facilitate screening and referrals for health, mental health, disability and family support; and 3) a coordinated data infrastructure to collect information on where young children spend their time and program effectiveness.
- Head Start and Early Head Start:** Child health and developmental services, mental health, and nutrition are a central focus of the Federal Head Start and Early Head Start programs. More specifically, Head Start Program Performance Standards require programs to ensure that children are up-to-date on a schedule of age appropriate preventive and primary health care which includes medical, dental and mental health. For children who are not up-to-date on an age-appropriate schedule of well child care, grantee and delegate agencies must assist parents in making the necessary arrangements to bring the child up-to-date.
- Healthy People 2010:** State and local efforts to advance the oral health objectives of Healthy People 2010 can help with goal setting and the targeting of specific interventions.

Implications for Policy and Practice

State and local level policymakers, program administrators, children's advocates, and other key groups can advance strategies to maintain and enhance dental caries prevention efforts. Most of these strategies are critical components of a comprehensive system to promote children's optimal oral health. In challenging fiscal times, they are even more essential to ensuring healthy outcomes for children and youth.^{51, 52}

- Develop and strengthen interventions that focus on populations at high-risk of dental caries (e.g., low income children) for whom generally small investments will have a significant payoff in terms of reduced risk for dental caries and cost savings from averted treatment.
- Maintain investments in proven dental caries prevention interventions that have a significant benefit to children's oral health outcomes. These interventions include: 1) community water fluoridation, 2) school dental sealant programs for children deemed at high-risk for dental caries, and 3) fluoride varnish programs.
- Ensure that a focus on oral health promotion and dental caries prevention is part of federal and state reforms and initiatives to improve child outcomes in health, education and overall well-being.
- Integrate oral health promotion and dental caries prevention interventions into settings where children are most commonly found (e.g., child care centers, Head Start and WIC programs, pediatricians' offices, home visiting programs, schools) and ensure that there is optimal coordination between these settings and dental care providers.
- Operationalize the less expensive aspects of the Children's Health Insurance Program Reconciliation Act (CHIPRA). For example, actively promote public-private contracting between private practice dentists and Federally Qualified

Health Centers (FQHCs) by engaging the local dental society and local FQHCs in discussion about strategies for implementation.

- Modify State Practice Acts in order to take advantage of the Alternative Dental Health Care Provider Demonstration Grants under Health Care Reform.
- Monitor new grant programs authorized by Health Care Reform in preparation to apply for them when they become available.
- Improve the state level infrastructure for oral health surveillance and reporting as a cost-savings measure and as part of efforts to target limited resources. This includes taking advantage of the training and assistance available through the Association of State and Territorial Dental Directors, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention. It also involves generating new data (e.g., emergency department visits for preventable dental conditions) to highlight the impact and costs of cuts to dental programs and services.

Conclusion

The state fiscal crisis presents significant challenges to policymakers and leaders in the dental community for how best to maintain and sustain advancements that have been made over the last decade to dental caries prevention policies and programs. At the same time, the crisis offers states and communities an opportunity to refocus efforts and realign systems to ensure that the core elements of a comprehensive system of care are maintained and that limited resources are targeted to cost-effective interventions and populations with the greatest potential for a return on investment.



HIGHLIGHTS

Strategies for Sustaining and Enhancing Prevention of Childhood Tooth Decay during Challenging Times

Nearly all states are experiencing significant budget problems with more than half of states cutting public health and health care services as a result. These budget cuts are expected to increase for the 2011 fiscal year and to continue to significantly impact health and human services, including dental programs and services for children and families, pregnant women and adults. They are being made at a time when greater numbers of children and families are in need, particularly for dental care services. Tooth decay is the number one chronic condition of childhood and is on the rise among young children for the first time in 40 years.⁵³

The public health and dental communities have made significant strides in preventing childhood dental caries that include increases in community water fluoridation, greater recognition among parents about the benefits of good oral health practices in young children, and improvements to key federal policies such as the Children's Health Insurance Program. Furthermore, the new Health Care Reform law includes numerous provisions to promote oral health and prevent dental caries in children. Perhaps never before has the need for sustaining and enhancing these and other efforts been more paramount.

While the budget crisis poses many threats and challenges to oral health programs at the state and local level, it can be an opportunity to re-focus efforts and realign investments for childhood dental caries prevention. State and local level policymakers, program administrators, and other key groups can advance strategies to maintain and enhance dental caries prevention efforts many of which require minimal investment. These strategies include:

- Developing and strengthening interventions that focus on populations at high-risk of dental caries (e.g., low income children) for whom generally small investments will have a significant payoff in terms of reduced risk for dental caries and cost savings from averted treatment.
- Maintaining investments in proven dental caries prevention interventions that have a significant benefit to children's oral health outcomes. These interventions include: 1) community water fluoridation, 2) school dental sealant programs for children deemed at high-risk for dental caries, and 3) fluoride varnish programs.

- Ensuring that a focus on oral health promotion and dental caries prevention is part of federal and state reforms and initiatives to improve child outcomes in health, education and overall well-being.
- Integrating oral health promotion and dental caries prevention interventions into settings where children are most commonly found (e.g., child care centers, Head Start and WIC programs, pediatricians' offices, home visiting programs, schools) and ensure that there is optimal coordination between these settings and dental care providers.
- Operationalizing the less expensive aspects of the Children's Health Insurance Program Reconciliation Act (CHIPRA). For example, actively promote public-private contracting between private practice dentists and Federally Qualified Health Centers (FQHCs) by engaging the local dental society and local FQHCs in discussion about strategies for implementation.
- Modifying State Practice Acts in order to take advantage of the Alternative Dental Health Care Provider Demonstration Grants under the Health Care Reform.
- Monitoring new grant programs authorized by Health Care Reform in preparation to apply for them when they become available.
- Improving the state level infrastructure for oral health surveillance and reporting as a cost-savings measure and as part of efforts to target limited resources. This includes taking advantage of the training and assistance available through the Association of State and Territorial Dental Directors, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention. It also involves generating new data (e.g., emergency department visits for preventable dental conditions) to highlight the impact and costs of cuts to dental programs and services.



About the Children's Dental Health Project and the National Oral Health Policy Center

Founded in 1997, Children's Dental Health Project (CDHP) is a national nonprofit organization with the vision of achieving equity in children's oral health. CDHP designs and advances research-driven policies and innovative solutions by engaging a broad base of partners committed to children and oral health, including professionals, communities, policymakers, and parents.

The National Oral Health Policy Center was created in 2008 as a collaborative effort of Children's Dental Health Project (CDHP), Association of Maternal and Child Health Programs (AMCHP), Association of State and Territorial Dental Directors (ASTDD), Medicaid/SCHIP Dental Association (MSDA), and National Academy for State Health Policy (NASHP) with funding from the federal Maternal and Child Health Bureau of the Department of Health and Human Services, Health Resources and Services Administration. The Policy Center promotes the understanding of effective policy options to address ongoing disparities in children's oral health. The three-year initiative has set out to map a course for improving family oral health by building knowledge and skills of professionals with the ability to steer systems changes.

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Feedback for Future TRENDNOTES Topics:

The National Oral Health Policy Center covers emergent and emerging trends in children's oral health to educate policymakers and to advance policies and practices that improve oral health for all children, including those with physical and social vulnerabilities. To provide your feedback to this publication and submit ideas for future **TRENDNOTES** please go to: <http://survey.constantcontact.com/survey/a07e2l81913g0761g00/start>.

For Further Information:

The Children's Dental Health Project would like to know how policymakers are using **TRENDNOTES** and hear about additional topics of interest. To help inform future **TRENDNOTES** topics and for more information about children's oral health or this **TRENDNOTE** please contact: Colin Reusch, Project Associate, Children's Dental Health Project, at (202) 833-8288 or creusch@cdhp.org.

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