Issue Brief

Building School-Community Partnerships for Children's Oral Health in West Virginia

At one large hospital in West Virginia, about 40 children and adolescents are admitted to outpatient surgery every month to have teeth extracted. According to the nursing director, most of these admissions could be avoided if children received adequate preventive dental care.

Daily, West Virginia children and youth are in hospitals for costly dental services that could have been prevented. Dental caries is an infectious disease process that is the most common - and yet 100 percent preventable - chronic childhood disease. It affects a child's ability to sleep, eat and learn - especially among poor children and adolescents who are almost twice as likely to have untreated decay as other children.[1]

The 1996 National Health Survey reported that students missed an average of 3.1 days of school per 100 students because of dental problems.

Children from low-income families missed 12 times as many days as did children from higher income families.

- *National Maternal and Child Oral Health Research Center*, www.mchoralhealth.org

Prevalence: While WV has made progress in addressing oral health needs, it is still among the states with very poor oral health:

- Sixty-six percent of children have cavities by age eight;
- Thirty three percent of 15 year olds have untreated decay- compared to the national average of 20 percent;
- Eighty percent of dental caries in children is concentrated in 25% of the child population;
- By age eight, only 37% of children have received protective sealants; [2]
- Sixty - four percent of Medicaid children did not see a dentist in 2003 even though they are entitled to the full range of dental services;[3]

Issues affecting oral health status are systemic and complex. Most relevant to children's oral health status are the following:

Fluoridation: Children in communities with water fluoridation experience 29% fewer cavities. Every dollar spent on water fluoridation saves $7 to $42 in treatment costs. [4] In West Virginia, thirty percent of the population is without adequately fluoridated or non-fluoridated water; only twelve counties have at least 75% of their population receiving adequately fluoridated water.

Fluoride rinse programs: The Association of State and Territorial Dental Directors recommends fluoride rinse for all students 6-16 years in communities with less than optimally fluoridated water. Yet according to the survey of

WV school nurses conducted in 2007, only 24 counties reported having any fluoride rinse program and many of those were limited in scope.

Sealant programs: Children receiving sealants in school-based programs have 60% fewer new decayed pit and fissure surfaces in back teeth for up to 2 to 5 years after a single application. Findings from scientific studies clearly show that school-based sealant programs work to stop tooth decay.[5] The Surgeon General's report cites school-based sealant programs as an effective public health practice. Nine counties in West Virginia reported having any sealant programs, and three of those were very limited, reaching less than 50 students per year.

Insurance coverage: While a lack of insurance coverage is a major barrier to accessing dental care, insurance coverage alone will not address the access issues. The majority of children have dental coverage through Medicaid or WV CHIP. Despite this coverage, only 40% of Medicaid eligible children 3 -10 years saw a dentist in 2003. [6]

Dentists limit the number of Medicaid patients due to low reimbursement rates, broken appointments and non-compliant patients[7]

Cultural and social factors: For families struggling to keep jobs or put food on the table, oral health is not a high priority. Parents cannot take time away from work, dentists are sometimes over one hour away and for many, the only experience with dentists has been painful, not preventive.

Six months after preventive intervention, the proportion of teeth with new decay was reduced 52 percent in primary teeth and 31 percent in permanent. The percentage of children with newly decayed or restored primary and permanent teeth was reduced by 25 and 53 percent, respectively.

These results indicate that this care model relatively quickly can overcome multiple barriers to care and improve children's oral health. If widely implemented, comprehensive caries prevention programs …could accomplish national health goals and reduce the need for new care providers and clinics.

- *ForsythKids Program*

Why School Programs?

The ultimate goal is for every child and teen to have a dental home. However, school - based programs are an effective public health approach to increase access and prevention efforts until that goal is achieved. They:

- Increase access to prevention, case finding, and treatment, especially for low income children;
- Alleviate some of the geographic, transportation and work barriers faced by parents;
- Reduce the scheduling problems and the high "no show" rate encountered in the dentist's office; and
- Change cultural attitudes

Services in school programs: Most school programs focus on providing case finding and preventive care such as sealants and cleanings. Programs must ensure, however, that students have access to the comprehensive care of a dental home. The following services should be provided either through the school program or through arrangements with local providers: Screening and assessment; fluoride mouth rinses and dietary supplements;

fluoride varnish for young children; sealants for second/third and sixth graders with appropriate follow-up to evaluate retention of the sealants; caries treatment for any students identified as in need.

Models: There is no single best model for school based dental programs. The type of program will depend upon local resources, needs and priorities. The most common models are 1) a fixed dental facility within the school; 2) a mobile dental van; 3) portable dental units taken to schools on a regular schedule; or 4) children bused to a school linked clinic or private dental office.

Successful Programs: Successful school dental programs require effort at both the state and local levels. To achieve sustainability, state level policies and resources must support local efforts and be responsive to the barriers that communities will encounter. Elements that will contribute to success include a community wide planning process that involves all stakeholder groups; a lead agency that will take responsibility for implementing the program; support and involvement of local dentists; a dental director who will provide necessary consultation, oversight and guidance to the program; evaluation and continuous quality improvement.

What is a Dental Home?

The dental home is the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated and family – centered way. Establishment of a dental home begins no later than 12 months and includes referral to dental specialists when appropriate.

- *American Academy of Pediatric Dentistry*

General Principles

1. Programs should support the concept and use of a dental home and link students to private providers when possible.[8]
2. Programs should work closely with school personnel to minimize disruption of class time.
3. Services should not duplicate programs or services already in a community; and should be coordinated with private dentists, school nurses, and school-based and community health centers.
4. Services should be available to all students but should focus on low income, Medicaid and uninsured and include a sliding fee schedule based on ability to pay.
5. Parents should be encouraged to participate in their child's care. Consent for treatment must be provided by the parent/legal guardian. Parents will receive information about the program and any services provided to their child.
6. If care does not include a full exam with radiographs, parents must be informed that the limited exam does not replace comprehensive, regular care.
7. Services are culturally competent: staff respects, understands and incorporates sensitivity to ethnic, linguistic and cultural diversity.[9]
8. Programs are comprehensive: Oral health involves prevention, education and access to dental care. All components of comprehensive care should be considered and incorporated as needed into a school program.
9. The program should ensure that every child screened will have reasonable access to treatment either through the school/community-based dental clinic or through a dental home.
10. School programs must work with local dentists to ensure that billing practices do not affect the local dentists' ability to charge for restoration of carious teeth.

11. The program will abide by all federal and state laws and professional standards of practice.
12. Lastly, the program plan should incorporate continuous quality improvement and outcome evaluation methods.

To deliver widespread caries prevention…interventions outside a dentist's office will be required….If local health professionals implemented comprehensive elementary school based caries prevention programs, local practices would increase access to care and….it would lead to larger practice sizes, fewer emergencies and greater income.

- *ForsythKids Program*

Conclusions

The evidence for school based preventive services is well - documented. Improving the oral health of West Virginia's youth will require sustained commitment at all levels and by many key stakeholders – communities, dentists, primary health providers, local and state governments – and increased resources. School based programs address many of the barriers to access but their success ultimately will depend upon systemic policy changes regarding reimbursement, insurance coverage and scope of practice. An evaluation of the ForsythKids Program in Massachusetts concludes that comprehensive school based programs can quickly overcome multiple barriers to care and in fact, may result in increased revenue and more efficient use of private provider office time.[10]

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[1] Fact Sheet, Children's Oral Health, Centers for Disease Control and Prevention. http://www.cdc.gov/OralHealth/publications/factsheets/sgr2000_fs3.htm

[2] West Virginia Healthy People 2010; http://www.wvdhhr.org/bph/hp2010/objective/21.htm

[3] BMS416, 2003 Medicaid, http://oralhealthwv.org/newsarticles/cg122407.htm

[4] [4] Preventing Chronic Diseases, Investing Wisely in Health , Preventing Dental Caries, CDC, DHHS; http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/oh.htm

[5] http://www.cdc.gov/OralHealth/topics/dental_sealant_programs.htm

[6] Correspondence with Phil Edwards, OMCFH, WVDHHR, August, 2008

[7] Attitudes of West Virginia Dentists Toward Publicly-Sponsored Patients and Children with Special Health Care Needs, WVDHHR, OMCFH, date unknown

[8] American Academy of Pediatric Dentistry, Definition of a Dental Home; http://www.aapd.org/media/Policies_Guidelines/D_DentalHome.pdf

[9] Surgeon General's Report\Oral Health Resources - SG Summary 2000 Fact Sheet

U.S. Department of Health and Human Services. *National Call to Action to Promote Oral Health.* Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Dental and Craniofacial Research. NIH Publication No. 03-5303, Spring 2003. http://www.surgeongeneral.gov/topics/oralhealth/nationalcalltoaction.html

[10] Neiderman, et al. "Extending the Traditional Dental Practice: The ForsythKids Program, JADA, August 2008

For more information, please contact Linda Anderson, MPH, landerson@marshall.edu, School Health Technical Assistance and Evaluation Center, Marshall University.