



Dental Public Health Activities & Practices

Practice Number: 32003
Submitted By: Oral Health Program, New Hampshire Department of Health & Human Services
Submission Date: March 2002
Last Updated: November 2009

SECTION I: PRACTICE OVERVIEW

Name of the Practice:

New Hampshire School-Based Preventive Dental Programs

Public Health Functions:

Assessment – Acquiring Data
 Assessment – Use of Data
 Policy Development – Collaboration & Partnership for Planning and Integration
 Assurance – Oral Health Communications
 Assurance – Building Linkages & Partnerships for Interventions
 Assurance – Building Community Capacity for Interventions
 Assurance – Program Evaluation for Outcomes and Quality Management

HP 2010 Objectives:

21-1 Reduce dental caries experience in children
 21-2 Reduce untreated dental decay in children
 21-8 Increase sealants on first molars for children
 21-12 Increase preventive dental services for low-income children and adolescents
 21-13 Increase number of school-based health center with oral health component

State:

New Hampshire

Region:

Northeast
Region I

Key Words:

School based programs, prevention, dental screening, sealants, case management, restorative, referrals, preventive services, children services

Abstract:

New Hampshire has 21 school-based preventive dental programs serving over 37,424 students. These programs are implemented in approximately 168 schools, accounting for 53% of the 317 elementary schools in the state. Each program is administered independently by a sponsoring agency. Some programs serve only a few schools in a town while some serve multiple school districts. Each program hires a registered dental hygienist (RDH) to deliver and/or coordinate dental screenings, prophylaxis, topical fluoride treatments, dental sealants, individual and classroom oral health education, classroom fluoride mouthrinses and the collection of data for the state's oral health surveillance system. When a program identifies children who need restorative dental treatment, the RDH refers the children to local dentists and serves as a case manager to assure that children and their families have transportation and comply with treatment recommendations. The programs receive partial funding from the New Hampshire Department of Health and Human Services, Oral Health Program and reimbursement by Medicaid for preventive services provided by the RDHs. The programs also receive funding through sponsorship from a variety of community sources including hospitals, community health centers, Kiwanis, Visiting Nurse Associations, Northeast Delta Dental Corporation, foundations, and other community organizations. Dentists provide treatment to the programs' children at no cost, at Medicaid rates, or at discounted rates negotiated with the sponsoring organization funding the program. The New Hampshire Department of Health and Human Services, Oral Health Program provides technical support to schools that are seeking funding to establish a school-based preventive dental program and to set up the program.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

In 1992, the New Hampshire legislature withdrew all funding from the State's oral health program (administered by the state health agency). The following year, using Community Grant funding, six communities re-establish three school-based dental programs and three community-based dental centers. New school-based dental programs added linkages to restorative treatment by having school-based dental hygienists coordinate care for needy children to local dental practices. Over the years, the number of school-based dental preventive programs has grown and currently reaches more than half the elementary schools in the state.

Justification of the Practice:

The 2004 New Hampshire Third Grade Oral Health Survey showed that among 598 third grade students surveyed, 51% (95% confidence interval: 45.7%-56.3%) of the children had a history of dental caries and 24.1% (95% confidence interval: 18.0%-30.2%) had untreated tooth decay. Medicaid enrolled children continue to have problems accessing dental care even with fee for service and comprehensive dental coverage. Recent data indicates that 47% of children enrolled in the New Hampshire Medicaid program received a dental visit during calendar year 2008 compared to more than 80% of children with private dental insurance having a dental visit. Uninsured children are even less likely to receive a dental visit compared to Medicaid children. Dental hygienists in the New Hampshire school-based dental programs assure needed preventive and restorative treatment for children by making referrals to local dentists willing to treat the community's vulnerable children.

Inputs, Activities, Outputs and Outcomes of the Practice:

Each of the New Hampshire school-based preventive dental programs is administered independently by the sponsoring organization such as a community health center or hospital, or in one case by the school district. Some programs serve only a few schools and some serve multiple school districts. The New Hampshire Department of Health and Human Services (NH DHHS), Oral Health Program provides some funding and technical support to the schools. This includes finding additional funding to support existing or set up new school-based preventive dental programs.

Often, school-based preventive dental programs are initiated with the support of broad-based community coalitions and partial financial support from the State. These programs begin slowly, treating children only one or two days a week in order to gain acceptance in a school system. Usually by the end of the first year, demand for the program increases. This demand subsequently requires additional service hours from the dental hygienist, additional grade levels to be included, and additional schools within the school district to receive services.

In the school-based preventive dental programs, registered dental hygienists serve as program coordinators and clinical providers delivering preventive services such as dental screenings, prophylaxis (teeth cleaning), topical fluoride treatments, individual and classroom oral health education, and classroom fluoride mouthrinses. Furthermore, all programs provide dental sealant application in the school setting or through linkages to private or dental public health practitioners. In every program, the dental hygienist manages the paperwork related to obtaining parental permission, medical/dental histories and Medicaid enrollment information, and reports findings of the dental screenings to the parents. The dental hygienist is the primary advocate for the program negotiating with school administrations, making community presentations, and raising funds to support the program. The dental hygienist also serves as a care coordinator for the child and family, communicating with the parents and dentists to address their children's unmet dental needs.

With the addition of dental sealant application to all school-based dental programs, dentists are required to provide dental examinations in the schools to meet the state rule requirement that each child must have an examination before dental sealants can be applied. The New Hampshire Dental Society has recruited dentists for these dental examinations. During school visits, the dentists have observed the level of untreated dental disease among students and many have responded by

treating children with urgent need in their dental practices. Increased awareness about evidence-based sealant research has motivated the New Hampshire Board of Dental Examiners to recommend that the examination requirement prior to sealant application be dropped. A new set of dental sealant protocols for the school programs are expected to be initiated by February 2010.

Eligibility for the school-based dental services is determined by the grade level covered by the program, and is dependent on each student's inability to access dental services. Based on the student's history, the dental hygienist determines if the child's family has access to dental services. Every student is invited to participate in the dental screening to determine the need for services. Only students not seen by a dentist in the last year are eligible for school-based treatment. Students screened with a dentist of record are referred for treatment back to their own dentist. Eligibility for school-based dental services based on ability to access care recognizes that even children with insurance may have oral health needs that have been overlooked. By providing dental services only for students without access to care, local dentists are reassured that school-programs are not competing for patients and will not be seen by parents as a more convenient means of addressing children's dental needs. Since programs are supported by the community, sponsors prefer not to have schools selected based the level of student participation in the free and reduced lunch (children from low income families). Sponsors want to make the dental services available to all students without access to care in all community through the school-based preventive programs.

In 2008, as part of the competitive bidding process, the Oral Health Program began to give funding preference to school-based dental programs that link Head Start (HS) and Early Head Start programs to oral health services for young children. This decision followed years of screening pre-school and Kindergarten children with advanced dental disease. It was clear that school-based dental programs needed to reach children earlier in order to prevent dental disease. HS programs have been active advocates for school-based dental programs that link them to services in local dental practices. However, in regions of the state where there are few dentists, school-based hygienists provide preventive services and education but have great difficulty getting children into dental offices for HS required examinations and restorative care.

The New Hampshire Oral Health Program collaborated with Medicaid to reimburse school-based dental programs for preventive services. Sponsoring organizations, with dental hygienists who deliver preventive services in schools, may become Medicaid dental providers. In those instances, the organizations are allowed to bill Medicaid for prophylaxis, dental sealants and fluoride treatments. Billing Medicaid for the preventive services will leverage funding to sustain the program.

In addition to providing preventive care, the school-based dental programs collect data for the state's oral health data surveillance system. Under the direction of the NH Division of Public Health Services (DPHS) Chronic Disease Epidemiologist, the programs' dental hygienists collect data on three oral health indicators for children: caries experience, untreated decay, and dental sealants. The indicators are used to track trending for the state and are submitted to the National Oral Health Surveillance System (NOHSS). The ASTDD Basic Screening Survey protocol is used to calibrate dental hygienists to assure standardized data collection across programs.

The 21 school-based dental programs provide preventive services to more than 37,424 children in 168 schools in the state (53% of the 317 elementary schools in New Hampshire) and have been able to sustain their services through Medicaid reimbursement and community resources.

Among school-based dental programs that have delivered preventive services for more than 12 years, improvements have been noted in the oral health status of elementary school students. Raising the awareness of the level of unmet dental need among children has improved the participation of community dentists in solving the problem of access to dental care. Safety net providers are incorporating oral health into the delivery of total health care as they accept children identified for dental care through school programs. School-based dental programs have the opportunity to enhance access for children through the expansion of integrated health systems.

The [Third Grade Oral Health/Body Mass Index Report](#) on the results of the New Hampshire Healthy Smiles–Healthy Growth Survey conducted during the 2008-2009 school year, showed marked improvement in the oral health status of third grade students compared to the previous survey conducted in 2004. Approximately 44% of the third graders had experienced tooth decay (51% in 2004), 12% of children had untreated tooth decay at the time of the survey (24% in 2004), and an estimated 60% of the students had dental sealants (43% in 2004). Several oral health initiatives over the last five years may have contributed to the improvement, including the school-based preventive dental programs.

Budget Estimates and Formulas of the Practice:

- The costs to initiate a school-based preventive dental program are small, approximately \$15,000 for portable equipment, hand instruments, and supplies.
- A dental hygienist can be contracted for the school-based preventive dental program for approximately \$30.00 per hour.
- The cost of running a school-based dental program with one hygienist working five days a week, ten months of the year, is approximately \$50,000.
- In SFY '09, the Oral Health Program provided \$ 301,750 (state and federal funds) to partially support 11 school-based preventive dental programs.

Lessons Learned and/or Plans for Improvement:

- Community-based dental coalitions have little difficulty recruiting qualified dental hygienists to fill positions in school-based preventive dental programs. Hygienists find these public health positions very desirable in spite of lower pay compared to private practice. They enjoy working school hours and making decisions that affect oral health outcomes of the children in their care.
- Care coordination by school-based dental hygienists builds trusting relationships with local dental practices. Dentists are willing to provide restorative treatment for school-based programs when their common complaints (e.g., no-shows, lack of transportation and non-compliant behavior) are managed by the school-based dental hygienists.
- The school-based dental programs identify needy students based on their inability to access dental services. Billing Medicaid for school-based preventive services provided to Medicaid enrolled children is not possible when schools object to identifying students based on income eligibility. In awarding competitive grants for 4-year cycles, considerations are given to the patient population, geographic location and distribution of the patient population, community needs assessments, and the quality of the grant application. All but two of NH elementary schools with 50% of students eligible for Free and reduced lunch are covered by a school-based dental program.
- New Hampshire's Oral Health Program and other funders encourage school-based dental programs to become Medicaid dental providers so they can be reimbursed for preventive dental services delivered by hygienists in schools. Medicaid reimbursement provides revenue to help sustain these popular programs.
- In three communities where restorative care was unavailable, oral health coalitions have built community-based dental centers to provide restorative care for needy families and their children identified through school dental programs.
- School nurses are an important resource for school-based dental programs. School nurses are aware of children and family situations; they can identify children most in need of treatment even before screening; they assure that those children are screened by the hygienist; and then they work with those parents to overcome barriers so children at greatest risk will be included in the dental treatment phase of the program. NH school nurses are the greatest advocates for school-based dental programs, to the extent that they have testified to legislative study committees about improving access to oral health care.
- Head Start/Early Head Start programs provide an important opportunity to educate parents, staff, and children about the importance of oral health to total health. School-based dental hygienists work closely with the Health/Nutrition Coordinators to provide nutrition and oral health education while delivering preventive dental care onsite to this Medicaid enrolled high-risk population. School-based dental hygienists use the relationships they have built with local dentists to bring them into Head Start programs to fulfill the federal mandate for dental examinations.

Available Information Resources:

- [ASTDD Basic Screening Survey for Children Planning and Implementation Packet](#)
- [New Hampshire 2008-09 Third Grade Healthy Smiles – Healthy Growth Survey](#)
- [Guide to Community Preventive Services – Oral Health](#)
- Gooch BF et al. [Preventing Dental Caries Through School-Based Sealant Programs: Updated Recommendations and Reviews of Evidence.](#) J Am Dent Assoc. 2009 Nov; 140(11): 1356-65.

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?

The impact of the New Hampshire school-based preventive dental programs includes the following:

- The New Hampshire Healthy Smiles–Healthy Growth Survey conducted during the 2008-2009 school year, showed marked improvement in the oral health status of third grade students. Approximately 44% of the third graders had experienced tooth decay (51% in 2004), 12% had untreated tooth decay (24% in 2004), and 60% had dental sealants (43% in 2004).
- The programs provide access to preventive and restorative dental care for many low-income, uninsured, and underinsured children. High-risk children experience positive outcomes and immediate improvement in their oral health and well-being when long-standing decay is treated.
- All of the school-based dental programs provide dental sealants, an evidence-based strategy to prevent tooth decay.
- Community dental coalitions have built safety net dental clinics as a result of growing school-based programs in order to treat the programs' children who were unable to access care.

Efficiency

How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.

The low-cost investment needed to start a school-based dental program demonstrates efficient use of resources. Each school-based program pools funding from several sources with partial funding from the State, Medicaid reimbursement for preventive services delivered by the program's dental hygienist, a sponsoring organization (e.g., a hospital or community health center), and other community partners. Agencies that sponsor school-based dental programs have become effective fund raisers winning additional grants from entities like the Ronald McDonald House, Walmart, component dental societies, and Northeast Delta Dental Foundation to name just a few. Preventive dental services are cost effective compared to extensive restorative treatment.

Demonstrated Sustainability

How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

Since 1993, broad-based community oral health coalitions have filled the gaps to sustain school-based dental programs, with local financial and in-kind resources. In SFY '09, the New Hampshire Department of Health and Human Services, Oral Health Program provided \$301,750, in combined state and federal funding, to partially support 11 school-based preventive dental programs. The New Hampshire school-based dental programs have strong state and community support.

Collaboration/Integration

How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

The New Hampshire school-based preventive dental programs have been extremely successful in building partnerships between schools, hospitals, community health centers, Head Start programs, Visiting Nurse Associations (VNAs), Delta Dental Corp., fraternal organizations (Kiwanis, Lions), local businesses, foundations, other funders, and the dental community. School-based dental programs have integrated dentists into the schools as providers/educators. Programs have raised the visibility of the unmet dental needs of high-risk children so that dentists who formerly didn't believe there

was an unmet dental need have become active advocates for students. A school-based dental program is the model used by New Hampshire advocates to start school-based health centers.

Objectives/Rationale

How has the practice addressed HP 2010 objectives, met the National Call to Action to Promote Oral Health, and/or built basic infrastructure and capacity for state/territorial/community oral health programs?

The school-based preventive dental programs support efforts in achieving the Healthy People 2010 objectives related to reducing dental caries experience, reducing untreated dental decay, increasing dental sealant placements, increasing preventive services for low-income children, and increasing number of school-based health centers with an oral health component. Having the dental hygienists collect oral health data through the school-based programs maintains the state oral health surveillance system and helps build infrastructure for New Hampshire's Oral Health Program

Extent of Use Among States

Describe the extent of the practice or aspects of the practice used in other states.

The New Hampshire school-based preventive dental programs provide dental screenings, prophylaxis, topical fluoride treatments, individual and classroom oral health education, dental sealants, and classroom fluoride mouthrinses, and linkages to restorative treatment. These preventive services are provided in other states. The 2009 ASTDD report of the Synopses of State Dental Public Health Programs (data for FY 2007-08) showed that 37 states reported having a dental screening program, 45 states having an oral health education/promotion program, 39 states having a dental sealant program, 35 states having a fluoride mouthrinse program, 25 states having a fluoride varnish program, and 33 states a access to care program.