Dental Public Health Activities & Practices

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SECTION I: PRACTICE OVERVIEW

Name of the Practice:

New Hampshire Statewide Sealant Project (NHSSP)

Public Health Functions:

Assurance – Population-based Intervention
Assurance – Building Linkages and Partnerships for Interventions
Assurance – Access to Care and Health Systems Interventions

Healthy People 2010 Objectives:

21-1 Reduce dental caries experience in children
21-2 Reduce untreated dental decay in children and adults
21-8 Increase sealants for 8 year-olds' first molars & 14 year-olds' first & second molars

State:	Federal Region:	Key Words for Searches:
New Hampshire	Northeast Region I	Oral health, school-based oral health, sealants, assessment, oral health data

Summary:

The New Hampshire Department of Health and Human Services, Oral Health Program, with the support of a Task Force representing partners and stakeholders, established a demonstration project called the New Hampshire Statewide Sealant Project (NHSSP). A grant from Endowment for Health, a private NH foundation, funded the project for a planning year (7/1/03 – 6/30/04) and three implementation years (7/1/04 – 6/30/07). The project: (1) built on the existing infrastructure of NH's 21 school-based programs, using volunteer dentists to provide required patient examination, and school-based programs' dental hygienists to apply sealants to eligible children; (2) placed teams consisting of a volunteer dentist, dental hygienist and dental assistant in schools, which are not served by existing school-based programs but have large populations of at-risk children, to provide examinations and sealants to eligible children (based on an Ohio sealant program model with some modifications); (3) worked with the communities with the NHSSP Ohio Model to create sustainable programs which will provide sealants for children in school-based settings; (4) evaluated and compared the three delivery models set up to deliver dental sealants with regard to clinical efficiencies and sealant retention rates (school-based vs. school linked vs. NHSSP Ohio Model sealant programs); (5) increased the number of NH dentists volunteering in school-based program; and (6) sponsored annual continuing educational conferences for dental health and public health professionals, providing them with the latest evidence-based research on clinical use of dental sealants. The project increased access and delivered dental sealants for children in NH schools: provided 18,216 dental screenings/examinations/sealant retention checks for 2nd , 3rd and 4th grade children and 5,926 sealants to 1,670 children in 2nd and 3rd grades.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

From the 1973 to 1993, the New Hampshire Department of Health and Human Services (NH DHHS) supported a school-based dental public health program. In 1993, the State of NH eliminated funding for the program and the program ended. By 2005, through community grass-roots efforts, 21 school-based and school-linked dental programs serving 175 schools have been established. These programs have similar operational structure but their funding sources varied significantly. Some programs are associated with community health centers, some with hospitals, and some function independently. Eleven of these programs receive limited funding through the NH DHHS, Oral Health Program (OHP); the remaining ten programs receive funding through private foundations, independent fundraising efforts, hospital support, and/or community health center support. All 21 programs receive technical assistance from the OHP. The OHP maintains a database of the oral health status of all children served; data submitted annually by all programs regardless of funding source. The OHP also facilitates networking for school-based dental hygienists for exchanging information on efficacy of dental materials, chairside techniques and program processes.

In 2003, the Endowment for Health, a private NH foundation, convened the NH Oral Health Coalition by bringing a large group of key stakeholders together to improve oral health. Stakeholders represented numerous health and social service agencies, professions and organizations including the Bi-State Primary Care Association, the NH Dental Society, the NH Dental Hygienists Association, and the NH Department of Health and Human Services. The Coalition developed a statewide oral health plan called New Hampshire Oral Health Plan: A Framework for Action. The Coalition also oversees the implementation of the Oral Health Plan. One of goals of the Oral Health Plan is to increase the number of children in NH who have preventive dental sealants. In 2003, the Endowment for Health provided grant funding for four years to establish the **New Hampshire Statewide Sealant Project (NHSSP)**.

Justification of the Practice:

2007 NH data shows that among second and third graders screened, 17% had untreated decay, 41% had caries experience, and 47% had at least one sealant on a molar tooth. One of the Healthy NH 2010 goal sets a target to have 60% of second and third graders with dental sealants; this goal has not yet been achieved. Increasing the number of at-risk children with dental sealants would improve the oral health of the children in NH.

The effectiveness of sealants for preventing dental caries is well established. Strong evidence exists for the effectiveness of school-based, school-linked sealant programs as a public health intervention to prevent tooth decay in children. A dental public health focus of school sealant programs is to effectively and efficiently (cost-effectively) increase the proportion of children with protective dental sealants on their teeth.

Inputs, Activities, Outputs and Outcomes of the Practice:

NH DHHS Oral Health Program, with the guidance of a task force, launched the NH Statewide Sealant Project (NHSSP) in July 2003. The NH Statewide Sealant Project aims to increase the prevalence of dental sealants among children and to compare three models in the delivery of sealants to children in 2nd and 3rd grades.

Support from a Foundation

The NHSSP received primary funding support through a non-competitive grant application process from the Endowment for Health (EFH). This foundation funds selected "theme" areas. EFH defines a theme as "a critical, unmet need that affects a significant number of people in NH." Oral Health was a theme for the EFH from 2001-2007. The EFH stated their rationale for funding NHSSP: "The Sealant Project was an important project for the Endowment because it offered the opportunity to test and evaluate three different school-based sealant program

models to identify which was most efficient and effective in NH. More importantly, we hoped that the findings and evaluation would provide some influence over and the evidence needed by DHHS to examine their expectations of and funding for school based programs."

NHSSP also received funding from Northeast Delta Dental and Ronald McDonald House Charities, and a donation of supplies from an anonymous contributor.

Goals of NHSSP

The NHSSP project was a demonstration project supported by a grant. The NHSSP was set up to advance the NH Oral Health Plan's strategy to "implement and maintain the capacity for a statewide school-based sealant program." The goals of the project were to:

- Build on the existing infrastructure of 21 NH school-based, school-linked oral health programs and increase the capacity of existing programs to deliver dental children to eligible children.
- Create new school-based sealant programs in selected schools that did not already have existing programs.
- Increase cost-effectiveness by using volunteer dentists to provide dental examinations and increase the number of dentists actively participating in school programs and learn of the unmet dental need of their communities.
- Build long-term sustainability of school dental sealant programs (particularly in schools with new sealant programs).
- Increase the knowledge among children, parents, educators, local stakeholders, dental professionals, and potential funders about the value of dental sealants.
- Evaluate three dental sealant delivery models: (1) school-based, (2) school-linked, and (3) the NHSSP Ohio model
- Make best practice recommendations on dental sealant programs for NH communities.

Timeline of NHSSP

The NHSSP timeline began with planning in 2003 and ended with completing the project evaluation in 2008:

Year 1: Planning was completed (7/1/03 – 6/30/04). EFH awarded a one-year planning grant to the NH DHHS, Oral Health Program.

Years 2-3: Implementation occurred over three years (7/1/04 – 6/30/07) under the direction of a task force and leadership of the part-time project director.

Year 4: Evaluation required another year to collate data and work with the project evaluator to produce final reports.

NHSSP Task Force

A Task Force was established to direct the NHSSP. NHSSP Task Force members included volunteer members representing stakeholders/partners:

- The Executive Director of the NH Dental Society (partner agency)
- The Oral Health Program Manager, NH Dept. of Health & Human Services (partner agency)
- The past president of the NH Dental Society
- Two practicing dentists from the community

NHSSP staff members were also on the NHSSP Task Force:

- Project Director
- Project Registered Dental Hygienist
- Project Certified Dental Assistant
- Project Administrative Assistant

The Task Force met monthly to determine protocol, review program progress, develop policies, make plans to recruit volunteer dentists, and direct communication of project information to partner agencies, funders, the NH Oral Health Coalition and the dental community at large.

Three Dental Sealant Delivery Models

The NHSPP used three dental sealant delivery models:

a. School-based Model – Students are pre-screened by dental hygienists to be examined by volunteer dentists in schools. Using portable equipment, the dental hygienists provide

sealants in the schools following the required dental examination. Students with urgent or restorative oral health needs are referred to participating dentists for care. School hygienists develop ongoing relationships with schools nurses and community dentists and assist as care coordinators to obtain treatment for children with unmet needs.

b. School-linked Model – Students are screened/examined in schools and referred to public health and private dental practices. "Sealant Days" are organized by the school oral health programs to take identified children to dental practices for examinations and sealants. Public health and private dental offices typically make arrangements with families for reimbursement. Often, Medicaid is the payer. On Sealant Days, dental practices accept referred students for the purpose of providing sealants. Often, dentists, hygienists and dental assistants from a number of practices volunteer on a given day, filling all examination rooms in their offices. School program personnel arrange for transportation. Services are typically donated. One program reported sealing over 900 teeth on one 4-hour Sealant Day.

c. NHSSP Ohio Model – The NHSSP selected schools with large populations of at-risk children and without existing sealant programs. These "pilot schools" are set up with a new sealant program using the NHSSP Ohio Model. This model was based on the Ohio program implemented by the Bureau of Oral Health Services, Ohio Department of Health. In the original Ohio Model, a team consisting of a contracted or student dentist, staff registered dental hygienist (RDH) and certified dental assistant (CDA) using portable equipment to deliver sealants at school sites. For the NHSSP Ohio Model, a RDH provides classroom education on dental sealants, a dentist examines eligible children, and the RDH and CDA apply sealants in the school setting. The NHSSP Ohio Model modified the original Ohio model in two ways: (1) used volunteer dentists, and (2) identified dental offices to treat children with urgent needs (school nurses are given a list of children with urgent needs and they contacted the parents for follow up).

Programs varied in its setup. Some dental sealant programs pay dentists for treatment; some programs bill Medicaid; some dentists donate their services.

Project Staff

a. Project Director – A part time salaried position with the following duties:
- Facilitate monthly Task Force meetings (prepare agendas/minutes and follow up on questions/decisions by the Task Force)
- Communicate with partner agencies (NH DHHS and NH Dental Society)
- Provide personnel oversight and management
- Communicate and support the dental hygienists in all existing 21 school based, school linked programs (assist with volunteer dentists, help meet equipment and supplies needs, and review data collection needs of the project,)
- Collect annual data from school programs
- Collate and report project data
- Provide oversight of project finances, payroll and invoices
- Provide oversight of revision of forms; maintain library of current forms
- Obtain additional funding for the NHSSP
- Communicate with and report to funders
- Initiate and mentor community initiatives to sustain new programs initiated by the NHSSP in pilot schools
- Communicate and create final reports with the Evaluation Specialist
- Organize, coordinate and oversee annual Continuing Education Conference

b. Project Registered Dental Hygienist (RDH) – A part time hourly position with the following duties:
- Communicate with school principals and school nurses
- Deliver packets of permission forms and educational material to schools
- Schedule education session in classrooms
- Review "Medical History Forms" for each student to be examined
- Provide introductory packet to volunteer dentists; follow up to be sure dentists understood protocol
- Schedule examination days with volunteer dentists and schools
- Transport and set up of portable dental equipment in schools
- Assist dentist doing examinations
- Provide parents with "Results of Dental Examination" forms
- Provide in-school sealants on eligible children
- Provide parents with "Results of Sealant Placement" Forms
- Collate data for all pilot schools

c. Project Certified Dental Assistant (CDA) – A part time hourly position with the following duties:
   - Assist RDH in transportation and set up of equipment
   - Assist RDH in regular maintenance of equipment
   - Assist RDH and volunteer dentist with examinations and recording findings
   - Assist RDH with sealant placement

d. Project Administrative Assistant – A full time position for the first implementation year and then a part time hourly position for the last two implementation years with the following duties:
   - Take and write up minutes of Task Force meetings
   - Bill Medicaid for sealants, when appropriate
   - Maintain inventory on supplies
   - Coordinate ordering of supplies for all school programs and pilot schools.

Project Facilities and Sites

The Task Force met monthly at the NH Dental Society offices. Equipment and supplies were stored at the homes of the staff RDH and CDA. Dental sealants are provided on school grounds and at off-site facilities such as private general and pediatric dental offices, community health centers and hospitals.

Service Population & Eligibility for Service

Existing school dental programs develop their own eligibility criteria for children to participate. School programs generally try to screen all children to determine the unmet dental needs. In general, eligibility to received sealant services through the program is based on whether or not students have regular dental care.

NHSSP eligibility criteria for service were based on information obtained on the consent forms. Initially NHSSP intended to offer examinations to all students, and to offer sealants to those whose parents indicate they do not have regular dental care. However, NHSSP learned that clinical findings frequently indicated a lack of regular dental care even when the parent reported otherwise on the form. As a result, NHSSP modified the criteria to include information from both the consent form and the clinical findings.

NHSSP Activities

a. During the planning year, the NHSSP Task Force:
   - Recruited participation in the project among the 21 existing NH school oral health programs. All agreed to participate.
   - Recruited and held 4 regional trainings for volunteer dentists in an effort to calibrate examinations and assessments.
   - Hired project staff (the Director, Administrative Assistant, RDH and CDA).
   - Applied for and received funding for the 3 project implementation years.
   - Identified schools which did not have school oral health programs and which also had a high percentage of at-risk students (on free and reduced lunch programs) to implement the NHSSP Ohio Model.
   - Contracted an Evaluation Specialist to assist with design of data collection tools and final evaluation of data.
   - Researched and purchased portable dental equipment and supplies.
   - Conducted four regional trainings for school hygienists and volunteer dentists.

b. During the 3 implementation years, activities included:

For existing programs implementing the school-based or school-linked models –
   - Encouraged existing school programs to initiate, expand or continue providing dental sealants in addition to their current services such as prophylaxis, fluoride treatments, classroom education and referrals for needed dental treatment. A few of the existing school programs have been offering sealants as part of their programs for years; most had not because of supervision regulations that require a dentist to provide examinations prior to sealant application. Some programs were new and were barely operational.
   - Helped schools in recruiting volunteer dentists.
   - Identified existing school programs using a school-based delivery model and programs using a school-linked model.

- Participated in annual meetings to calibrate clinical practices relative to sealant examinations and application and provide educational opportunities for school hygienists.
- Collected annual data from school programs.
- Purchased second set of portable equipment, which was made available for school programs to borrow.
- Developed "Equipment Loan Form."

For the pilot schools implementing the NHSSP Ohio Model –

- Communicated with school superintendents, principals and school nurses to get pilot schools enrolled in the program.
- Developed permission forms, medical history forms, results of dental examination forms, sealant diagnosis forms, results of sealant placement forms, and data collection forms.
- Visited school nurses and principals to explain the program, deliver forms and determine best location to set up portable dental equipment
- Recruited volunteer dentists and scheduled schools for examination days.
- Conducted classroom education (sealant and general oral health) in all classes served by NHSSP.
- Conducted examinations with volunteer dentists and determined students eligible for sealants. The program added grades and schools in each successive year.
- Identified children with urgent needs; provided school nurses with a list of names for follow up with parents.
- Reviewed program and protocols each year and made changes where appropriate.
- Collected $10 per sealant, where appropriate; billed Medicaid for sealants provided, where appropriate.
- In Years 2 and 3, staff RDH and CDA returned to schools to check sealant retention and re-apply sealants that were not retained.

	Pilot schools with NHSSP Ohio Model	***2nd Grade***	***3rd Grade***	***4th Grade***
Year 1	5 schools	Received examinations and sealants	----	----
Year 2	8 schools	Received examinations and sealants	Received retention checks on students sealed last year in 2nd grade; other eligible 3rd graders received examinations and sealants	----
Year 3	9 schools	Received examinations and sealants	Received retention checks on students sealed last year in 2nd grade; other eligible 3rd graders received examinations and sealants	Received retention checks on 4th graders sealed last year in 3rd grade

c. During the evaluation year, activities included:

- Collected/collated data from all school programs and NHSSP Ohio model schools.
- Worked with Evaluation Specialist for evaluation and summary reports.
- Submitted reports to stakeholders, funders and ASTDD.

Project Outputs

NHPSS services for the 3 implementation years included:

- 18, 216 children screened/examined
- 1,670 children received at least one sealant
- 5,926 sealants were applied
- 651 children referred for urgent care
- 84 dentists participated in Year 1, 144 dentists in Year 2, and 141 dentists in Year 3

The program reached children in second, third, and fourth grades as shown below:

	Second Graders (3 years' total)	***Third Graders (2 years total*)***	***Fourth Graders (1 year's totals*)***
Screened/examined	10,671 children	6,781 children	764 children
Sealed	1,187 children	503 children	n/a children
Referred Urgent Care	351 children	244 children	56 children

*Some of these children had participated in previous grade(s) and some had not.

Other NHSSP outputs:

1. In an effort to share our experience and knowledge, NHSSP produced the *Guidelines for School Dental Programs* to assist communities who want to start school programs.
2. To change the culture and increase knowledge on dental sealants, NHSSP sponsored three annual Continuing Education Conferences for the NH, Maine and Massachusetts dental and public health communities:
   - *Dental Caries: the State of the Science* presented by Dr. Margarita Fonatana on October 21, 2005 – 206 dental and public health professionals attended.
   - *Evidence-based Caries Prevention* presented by Dr. Richard Neiderman on February 9, 2007 – 130 dental and public health professionals attended.
   - *Good Plaque, Sealants and Innovative Caries Treatment* presented by Dr. Max Anderson on April 11, 2008 – 165 dental/public health professionals attended.
3. Prepared a "Frequently Asked Questions" information paper about our project and dental sealants in general to educate schools and communities.
4. Conducted four regional trainings for volunteer dentists and school hygienists prior to the beginning of the project. The purpose was to calibrate examinations and sealant application and explain the project to school programs and community members.
5. Conducted education programs at each of three annual NH DHHS meetings of school hygienists.

Sustainability of the Project after the Grant Ends

For Existing School Programs:

By working with the school programs for three years, NHSSP was able to strengthen sealant programs sufficiently for them to continue on their own. Support included:

- Assisting with the recruitment of local volunteer dentists.
- Making portable dental equipment available on loan (continues after the project).
- Donating supplies for 4 years.
- Providing necessary forms (e.g. permission forms, results of examination forms etc.) for use by school programs.
- Providing education to school hygienists and community dentists about the effectiveness of dental sealants.

For NHSSP Ohio Model Pilot Schools:

These schools were located in four communities. Since each community has its own culture, assets and challenges, with NHSSP support, each developed local solutions to sustain dental sealant services. Solutions included:

- NHSSP encouraged stakeholders from communities to form a task force. As a result, one community formed a local dental sealant coalition that had since recruited local volunteer dentists, obtained funding from local businesses and service clubs, expanded the number of schools for the sealant program, used NHSSP portable equipment, and contracted a RDH and CDA as staff.
- Another community also created a community coalition and the coalition has evolved the new sealant program into finding a dental home for each child. The program now transports school children to the community dental public health facility for examinations, preventive and restorative services.
- The schools in the remaining two smaller communities were incorporated into the service area of existing school programs for continued sealant services.

Evaluation of the Project

Evaluation of the Project provided answers to important questions to direct the enhancement and expansion of sealant programs in NH. An experienced evaluator was contracted to design the evaluation and provide analysis (New Hampshire Statewide Sealant Project Evaluation and Analysis of Data for Reports).

Evaluation findings included the following:

1. The NHSSP reached children in 2nd, 3rd and 4th grades, demonstrating that large numbers of children could be reached through the three different models, in various regions of the state that differ with respect to population density, accessibility of dental care, characteristics of the residents (race, language, etc.).
2. The project reached substantial numbers of children at-risk as showed by the portion of children lacking regular dental care.
3. In general, the project demonstrated that all three models (school-linked, school-based, and Ohio) can reach children who lack regular dental care and children with otherwise undetected urgent oral health needs. At least one in ten children screened and/or examined through this project lacked regular dental care. At least one in twenty-five children screened and/or examined through this project had serious oral health needs that justified referrals for treatment.
4. The NHSSP Ohio Model appears to be more productive than the other two models. Higher percentages of 2nd grade children were sealed in the Ohio Model, compared with school-linked and school-based models. Among 2nd grade children screened and/or examined, substantially higher percentages sealed in Ohio Model, compared with school-linked and school-based models (51% for Ohio Model vs. 9-10% other models).
5. Retention rates in total for this project are very good, when compared to baseline developed by Griffin et al. based on analysis of 11 studies[1]: 88% of all sealants applied in a 2-year period were fully retained and 93% of sealants applied to occlusal surfaces only were fully retained.
6. All three models used a mix of dentists and dental hygienists, to attempt the most cost-effective delivery of care.
7. All three models recruited volunteer dentists in order to deliver quality dental services to underserved populations, with minimal demands on the professionals' time. Large numbers of dentists participated, minimizing demands on individual dentists' time.
8. The many variables encountered prevented a definitive conclusion that among the three models used by NHSPP (school-based, school-linked and the NHSSP Ohio Model) one model is better than the others.
9. The project increased the number of dentists participating in school-based oral health programs throughout the state.
10. The project reached a substantial number of children with education.

Budget Estimates and Formulas of the Practice:

EFH funded the NHSSP for one planning year and three implementation years. Another year was committed to evaluation of the project without additional funding. Project budget (excludes in-kind contributions):

Planning Year (2003-04):	$ 23,379
Project Implementation Year 1 (2004-05):	$ 83,229
Project Implementation Year 2 (2005-06):	$ 108,350
Project Implementation Year 3 (2006-07):	$ 104,726
Total	$ 319,364

There were other costs incurred by school-based and school-linked programs above and beyond the cost of NHSSP. Some of these programs provide additional dental services such as fluoride treatments, offer care coordination, and reimburse dentists for their services. Other programs, being part of a community health center, hospital or community dental practices, have overhead costs.

Lessons Learned and/or Plans for Improvement:

- The NHSSP demonstrated the feasibility of implementing three models within NH.
- Data suggest that NHSSP reached an underserved population. However, NHSSP did not gather data to assess racial and economic disparities and the program's impact on disparities.
- Data collection was challenging due to personnel turnover, difficulties in reaching 21 school-based hygienists and then receiving requested data in a timely manner. The Project was able to gather reliable information on school populations, which sealant delivery model was used by each school, the number of children reached through screenings/examinations, sealant application, and referrals for urgent care through NHSSP Ohio model schools. It was not possible to gather information on the time devoted to the project by school staff and volunteers and costs at each school for in-depth evaluation of the service delivery models.
- Some school-based programs in rural areas have difficulty recruiting volunteer dentists because there were few children to examine and distances between schools are great.
- There was difficulty in tracking children from school-linked vs. school-based programs referred to dental offices for needed restorative care; it was also difficult to track the sealants placed in dental practices since programs often don't get treatment results back from dental offices.
- The NHSSP did not have a core group of uniformly trained dentists or dental students. The project used local volunteer dentists with the intent to increase exposure of dentists to children with unmet needs in their own community. Although NHSSP offered trainings at the beginning of the project, calibration was lacking for volunteer dentists, which resulted in differences with dental diagnoses and determination of sealant retention.
- A protocol for referral of children with restorative and/or urgent needs is needed; the project staff could not ethnically ignore children needing treatment needs.

Available Resources - Models, Tools and Guidelines Relevant to the Practice:

- New Hampshire Statewide Sealant Project: Evaluation and Analysis of Data for Reports http://www.astdd.org/docs/NHSealantDemoProjectEvaluationReportJan2008.pdf
- Truman BI, Gooch BF, Sulemana I, et al. Reviews of evidence on interventions to prevent dental caries, oral and pharyngeal cancers, and sports-related craniofacial injuries. Am J Prev Med 2002;23(1S):21-54. http://www.thecommunityguide.org/oral/oral-ajpm-ev-rev.pdf
- Task Force on Community Preventive Services. Recommendations on selected interventions to prevent dental caries, oral and pharyngeal cancers, and sports-related craniofacial injuries. Am J Prev Med 2002;23(1S):16-20. http://www.thecommunityguide.org/oral/oral-ajpm-recs.pdf
- Task Force on Community Preventive Services. Promoting oral health: interventions for preventing dental caries, oral and pharyngeal cancers, and sports-related craniofacial injuries: A Report on Recommendations of the Task Force on Community Preventive Services. MMWR 2001;50(RR21):1-13. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5021a1.htm
- Association of State & Territorial Dental Directors (ASTDD). Best Practice Approaches for State and Community Oral Health Programs: School Based Dental Sealant Programs. http://www.astdd.org/docs/BPASchoolSealantPrograms.pdf
- Seal America – An online manual designed to assist health professionals initiate and implement a school-based dental sealant program to help prevent dental caries in children: http://www.mchoralhealth.org/SEAL/
- Impact of Targeted, School-Based Dental Sealant Programs in Reducing Racial and Economic Disparities in Sealant Prevalence Among Schoolchildren — Ohio, 1998-1999. MMWR, August 31, 2001: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5034a2.htm
- Centers for Disease Control and Prevention (CDC). Preventing Chronic Diseases – Investing Wisely in Health http://www.dental.ufl.edu/patients/Files/PreventingDentalCaries.pdf
- Centers for Disease Control and Prevention (CDC).Oral Health: Preventing Cavities, Gum Disease, and Tooth Loss. http://www.cdc.gov/nccdphp/publications/AAG/doh.htm

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 NHSSP, a demonstration project, achieved these project goals:

- One of the goals of the project was to determine which of the three models (school-based, school-linked, and NHSSP Ohio Model) would best serve NH. The many variables encountered prevented a definitive conclusion that one model is better than the others. The conclusion is that NH is just not a one-size fits all in this regard. Variables that affect choices of model: size of school, number of children without regular oral health care, and type of parental permission used (passive permission and one consent for both examination and sealants).
- Another project goal was to target schools with the greatest percentage of at-risk children. Schools with greatest numbers of at-risk children were determined by the percentage of children in the school who were eligible for free and reduced lunch. NHSSP Ohio Model schools served by the project were those schools with the highest percentage of students who qualified for free and reduced lunches the previous school year, which were not being served by any school oral health program.
- NHSSP increased the number of dentists participating in school-based oral health programs throughout the state.
- The project reached a substantial number of children with education. The NHSSP in Ohio Model schools provided all second and third graders classroom oral health education.

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 NHSSP used three models that used a mix of volunteer dentists and dental hygienists, to attempt the most cost-effective delivery of care under the current NH supervision rules for dental hygienists. All three models recruited volunteer dentists and with large numbers of volunteers participating, there were minimal demands on each individual dentist's time.

The NHSSP Ohio model appears to be more productive than the other two models (school-based and school-linked) with higher percentages of children examined and sealed.

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?

Although the NHSSP was a demonstration project, implemented for three years only, it has provided sustainable benefits by helping communities sustain their sealant programs after the grant ended.

For existing school-based and school-linked programs, NHSSP helped:

- Expand school programs that were either not previously delivering dental sealants or were doing so on a very limited basis, and enabled these programs to continue sealant applications after the NHSSP ended.
- Enable school programs to recruit more volunteer dentists and train additional program personnel, which will support delivery of dental sealants on an on-going basis.
- Commit the NH DHHS Oral Health Program to give funding preference to school-based programs that prioritize sealant application over other preventive services delivered to students.

For new sealant programs established by the NHSSP (the NHSSP Ohio Model), communities have found local solutions to sustain the sealant programs or deliver dental sealants using a different delivery model beyond the NHSSP funded period.

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?

NHSSP successfully created collaboration with the NH Dental Society, the NH DHHS Oral Health Program, and members of the NH Oral Health Coalition (served on the NHSSP Task Force).

NHSSP pilot school programs relied on collaboration among volunteer dentists and school personnel (school nurses, principals and teachers) in communities.

NHSSP worked with existing school oral health programs, which involved collaboration among program staff and school personnel and integration of services.

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 NHSSP addresses the following Healthy People 2010 objectives:

- Reduce dental caries experience in children
- Reduce untreated dental decay in children and adults
- Increase sealants for 8 year-olds' first molars & 14 year-olds' first & second molars

The NHSSP also addresses these issues highlighted in the Surgeon General's Report on Oral Health:

- Oral health disparities – Activities focused on schools with high percentages of students on free and reduced lunch programs (FRL).
- Collaboration – Private practice dentists, schools, and public health programs cooperated to provide preventive oral health services and links to restorative treatment to students without access to care.
- Improved awareness of effectiveness of dental sealants – Parents and dental and educational professionals received educational materials describing the effectiveness of sealants. Oral health professionals were invited to attend three educational programs presented by nationally recognized experts that highlighted evidence-based oral health activities.
- Evidence-based preventive intervention – Extensive research has shown that when properly applied dental sealants are effective in dramatically reducing caries on the chewing surfaces of molar teeth.

Extent of Use Among States

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

The 2009 Synopses of State Dental Public Health Programs showed that 39 states reported having a dental sealant program.

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Reference:

1. Griffin SO, Jones K, Gray SK, Malvitz DM, Gooch BF. Exploring four-handed delivery and retention of resin-based sealants. J Am Dent Assoc. 2008 Mar;139(3):281-9.