Dental Public Health Activity Descriptive Report

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SECTION I: PRACTICE OVERVIEW

Name of the Dental Public Health Activity:
Wisconsin Seal-A-Smile

Public Health Functions:
Assessment - Acquiring Data
Assessment – Use of Data
Policy Development – Collaboration and Partnership for Planning and Integration
Policy Development - Oral Health Program Policies
Policy Development - Use of State Oral Health Plan
Assurance – Population-based Interventions
Assurance – Building Linkages and Partnerships for Interventions
Assurance – Building State and Community Capacity for Interventions
Assurance – Access to Care and Health System Interventions
Assurance – Program Evaluation for Outcomes and Quality Management

Healthy People 2020 Objectives:
OH-1 Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
OH-2 Reduce the proportion of children and adolescents with untreated dental decay
OH-7 Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
OH-8 Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year
OH-10 Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health component
OH-11 Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year
OH-12 Increase the proportion of children and adolescents who have received dental sealants on their molar teeth

State:	**Federal Region:**	**Key Words for Searches:**
Wisconsin	Region V	School-based program, dental sealants, children's oral health, prevention, access to oral health care, acquiring oral health data, fluoride varnish, Wisconsin Seal-A-Smile

Abstract:

The Wisconsin Seal-A-Smile (SAS) school-based dental sealant program began providing dental sealants to low-income children across the state of Wisconsin in 1999. The Wisconsin Department of Health Services (DHS) has provided ongoing funding for the SAS program since its inception. DHS, in collaboration with Children's Health Alliance of Wisconsin (Alliance), provides program support and monitors all aspects of the school-based dental sealant program. Local programs apply annually for mini-grants to support their dental sealant programs. Local public health departments, community health centers, hospitals, school districts, dental and dental hygiene schools, independent dental hygienists and dental clinics are the recipients of these grants ranging in size from $1,000 to $75,000.

Each local program tailors its dental sealant services to the needs of the community. These local programs provide dental screenings, oral health education, fluoride varnishes and dental sealants. Some programs offer additional services such as dental cleanings and, in a few cases, restorative

services. Programs have been successful in the case management of children who have urgent needs by developing relationships with local dentists and dental clinics.

The Wisconsin SAS if funded by two different sources. General purpose revenue from the state budget provides $377,212 annually. Since 2009, Delta Dental of Wisconsin has contributed $250,000 annually. In 2014, Delta Dental of Wisconsin provided an additional $100,000 to improve the data collection tool currently used and for program expansion to additional high-risk schools.

Wisconsin SAS program has allowed many low-income children across Wisconsin to receive preventive services, which many of the children would not otherwise receive. With increased funding, the SAS program has been able to significantly expand. Since 2009, new programs have been started and existing programs have expanded to serve additional high-risk schools. Currently, 60 of Wisconsin's 72 counties have a Wisconsin SAS funded school-based dental sealant program. Wisconsin SAS continues to seek additional funding to implement programming in high-risk schools that are not currently being served. In addition, further funding could increase the ability for programs to provide additional case management of dental care, which would allow for more children to establish a dental home.

The coordination of the SAS program by DHS and the Alliance on a statewide level has made a difference in the overall success of the program. As a result of this coordination, more than 90% of schools receiving school-based sealant programming are part of the SAS program. To be eligible for funding from SAS, programs are required to follow specific, evidence-based policies and procedures, ensuring all children receive consistent evidence-based care. All funded programs collect data using SEALS, which has allowed program administrators to evaluate the program on a local, county, regional and statewide level. Given the fact that a vast majority of Wisconsin school-based programs are part of SAS, the SEALS data is representative of state sealant activities. SEALS data have been the key to increased and sustainable funding for the program.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The Wisconsin Seal-A-Smile (SAS) program was developed as a result of strategic planning of the then Healthy Smiles for Wisconsin coalition, now known as the Wisconsin Oral Health Coalition (WOHC). The coalition identified school-based sealant programs as a feasible and evidence based strategy to improve the oral health of Wisconsin children. Initial funding for the program was provided through general purpose revenue (GPR) funding from the state budget in the amount of $60,000. The program has always been a collaborative effort between the Wisconsin Department of Health Services (DHS) and Children's Health Alliance of Wisconsin (Alliance). In 2005, annual funding for SAS increased to $120,000, as a result of Governor Jim Doyle's Kids First Initiative. However due to budget cuts, GPR funding in 2011-12 was reduced to $106,720.

In the 2006-07 school year, SAS funding again increased to approximately $200,000 due to Wisconsin receiving a Health Resources and Services Administration (HRSA) three-year oral health workforce grant. In 2009-10, the HRSA funding increased to $241,000 annually, which Delta Dental of Wisconsin agreed to match. Delta Dental was interested in partnering with the SAS program because of the strong data collection component our programs had. Delta was funding programs throughout the state but wanted a uniform way of collecting data so they decided to put their existing school-based funding towards SAS programs. Beginning in the 2012-13 school year, HRSA

funding ended and the Wisconsin Legislature's Joint Finance Committee approved a $250,000 increase to GPR funding to continue leveraging matching funds from Delta Dental of Wisconsin. Funding for the program in 2013-14 is slightly more than $600,000 annually.

During this time of expansion, the number of SAS funded programs has increased from six to 42, which now serve 60 of Wisconsin's 72 counties. In 2012-13, more than 45,000 children received oral health education and more than 33,000 children received preventive oral health services. In 2012-13 more than 21,000 children received dental sealants through SAS.

Justification of the Practice:

Sealants are a highly effective method of preventing tooth decay and providing care in a school-based setting allows for greater access to services for children, thus the SAS program was developed. Partners identified school-based sealant programs as a way of reaching vulnerable populations effectively. The lack of an existing state based sealant program led to the development of the SAS program in 1999.

In 2001-02, DHS completed a Basic Screening Survey of the oral health of Wisconsin third grade children and identified that approximately 60% had caries experience and 31% suffered from untreated decay. The survey also identified significant disparities between schools with high and low free and reduced meal program (FRMP) participation along with racial/ethnic disparities in regards to children with sealants, caries experience and untreated decay. This justified the need for the newly developed state based sealant program and showed a need for continued expansion.

In 2007-08 and 2012-13 follow up surveys were completed and the results showed progress in the areas of caries experience, untreated decay and socioeconomic, racial and ethnic disparities. Between the 2001-02 survey and the most recent survey, untreated decay rates have dropped from 31% to 17%. In this same period, caries experience has dropped from 60% to 53%. Most notably, the disparity that existed in schools based on FRMP has been eliminated. There are now a higher percentage of children (60%) in schools with high FRMP participation who have sealants than those children (55%) in lower FRMP schools. These findings show that targeting higher risk schools based on FRMP participation has been successful.

Inputs, Activities, Outputs and Outcomes of the Practice:

Inputs

Funding for the program has grown since program inception in 1999, from $60,000 annually to more than $600,000 currently. The SAS program administrative staff consists of the associate director at Children's Health Alliance of Wisconsin (0.65 FTE) and the DHS sealant coordinator (0.5 FTE). Grants are awarded to programs that use the funding for equipment, staff, supplies and coordination. Programs utilize a mix of paid and volunteer staff to provide oral health preventive services. Funded agencies include local public health departments, school districts, federally qualified health centers, community clinics and independent dentists/dental hygienists.

Data collection is one of most important inputs and has been instrumental in our programs growth. Wisconsin SAS uses Sealant Efficiency Assessment for Locals and States (SEALS) which was developed by the Centers for Disease Control and Prevention (CDC), upon request from Wisconsin after identifying a need for uniform data collection. Since 2005, SAS funded programs have been required to collect and report data utilizing SEALS. Wisconsin SAS administrators have used these data to show program effectiveness and overall impact. When Delta Dental of Wisconsin decided to commit $250,000 annually to the program it was because our programs are required to use SEALS and they wanted to see programs they were funding collect data in a uniform way. Due to the ability to show our reach and impact, SAS has been continually growing. SEALS data provides assurance to our funders that monies they contribute are used efficiently and effectively and have a definite impact on dental disease in Wisconsin.

Activities

Funding is awarded through a request for proposal (RFP) process by which agencies apply for funding in May/June. The submitted RFPs are scored and funding is awarded to agencies for services beginning on July 1 annually. Upon receiving a notification of award, programs complete a funding agreement and contract with the Alliance. Currently there are 42 funded programs providing care with awards ranging in size from $1,000 to $75,000. Upon request, SAS administrative staff provides ongoing technical assistance to programs throughout the year. Administrative staff complete comprehensive site visits for programs at least once every three years. Programs not

meeting specific goals and objectives for the year prior also receive site visits to assess efficiency and to allow for administrators to provide input on improvement. Annually, all funded programs are required to send at least one representative to an annual meeting hosted by DHS and the Alliance. A continuing education opportunity is offered the evening before for clinical staff on topics like infection control, maintaining portable equipment and treating children and youth with special health care needs (CYSHCN). During the all-day annual meeting covered topics include data entry, improving participation and marketing. Programs are encouraged to share experiences with one another and post meeting evaluations show that programs appreciate this opportunity to network. At the conclusion of the school year, all programs submit SEALS data to program administration. Through the collaboration with DHS, the epidemiologist is able to review data for inconsistency and help improve the fidelity of the data submitted.

Outputs

Between the 2005-06 and 2012-13 school years, the Wisconsin SAS program increased the total number of schools served from 135 to 613. A significant increase in schools with FRMP rates of greater than 50% also was achieved. The figure increased from 48 schools in 20 05-06, to 402 in 2012-13. This is 66% of the schools in Wisconsin that are at or above 50% participation in the FRMP.

Between the 2005-06 and 2012-13 school years Medicaid average reimbursement per child increased. A jump from approximately $30 per child in 2006-07, to more than $60 per child in 2007-08 was the most notable. This was the result of a state level policy change which allowed dental hygienists to become Medicaid providers. The number of children participating in the program and subsequently receiving sealants has increased significantly. In 2005, approximately 8,000 children participated in the SAS program and about 5,000 of them received sealants. This has increased in the 2012-13 school year to more than 33,000 children participating and more than 21,000 of them received dental sealants.

In 2009, SAS administrators changed policies to require programs provide two to three fluoride varnish applications annually. This led to a significantly higher number of children receiving fluoride treatments using evidence-based practices. Over 80% of the children receiving varnish applications receive at least two applications.

In evaluating the population served it was determined that the predominant number of children participating in the SAS program are Medicaid insured and uninsured children. Programs are required to see all children who return a consent form at no additional charge to the family regardless of insurance status. Annually about 70% of the participants are enrolled in Medicaid, 20% are uninsured and 10% have private dental insurance. Statewide efforts of other advocacy organizations have focused on Medicaid enrollment recently which could impact the number of uninsured children in the coming years.

Retention rates for the SAS program have been about 92% consistently since 2008-09. Prior rates hovered around 70%. SAS administration made policy changes in 2008 after the evidence-based practices for sealant placement in school-based programs were released by expert panels. Changes to sealant material type and placement procedures were made contributing to the improved retention rates. Programs are required by contract to evaluate retention on at least 10% of the children in each school who were sealed the prior year. Many programs evaluate a higher percentage of children because they use this visit to apply an additional application of fluoride varnish in addition to evaluating sealant retention. SAS administrators chose 10% as a benchmark for evaluation after consultation with the Centers for Disease Control and Prevention regarding this issue.

Outcomes

In 2001-02, DHS completed a survey of the oral health of Wisconsin third grade children and identified that approximately 60% had caries experience and 31% suffered from untreated decay. The survey also identified significant disparities between schools with high and low FRMP eligibility along with racial/ethnic disparities in regards to children with sealants, caries experience and untreated decay. Sealants are a highly effective method of preventing tooth decay and providing care in a school-based setting allows for greater access to services for children, thus the SAS program was developed.

In 2007-08 and in 2012-13, follow up surveys were completed showing progress in the areas of caries experience, untreated decay and a reduction in socioeconomic and racial/ethnic disparities. Between the 2001-02 survey and the most recent survey untreated decay rates dropped from 31%

to 17%. In this same period caries experience dropped from 60% to 53%. Most notably the socioeconomic disparity that existed between schools has been eliminated. There are now a higher percentage of children (60%) in schools with high FRMP eligibility who have sealants than those children (55%) in lower FRMP schools. These findings show targeting higher risk schools based on FRMP eligibility has been successful.

Wisconsin has met and exceeded the Healthy People (HP) 2020 objectives for dental sealants and untreated decay. The finding that 61% of Wisconsin third grade children have at least one dental sealant far outpaces the national objective of 28%. Additionally, the finding that 18% of third graders have untreated decay is better than the national target of 26%. Wisconsin is just short of the target for caries experience as 53% of third grade children had dental caries as compared to the national objective of 49%.

In Wisconsin, children from all races and ethnicities exceed the HP 2020 target of 28% for dental sealants. Almost all groups exceeded 50% for dental sealants, suggesting that dental sealants are equally available to children of all racial and ethnic groups. Additionally, children from all socioeconomic backgrounds have good access to dental sealants. The third grade oral health survey found that children attending schools with less than 25% FRMP rates had slightly lower sealant rates (55%) compared to the three higher categories of FRMP rates. This finding suggests that public school-based programs like SAS have allowed children attending schools with high levels of FRMP eligibility to have similar access to dental sealants as children attending schools with low eligibility.

Budget Estimates and Formulas of the Practice:

The program budget currently consists of approximately $377,212 of annual GPR funding allocated in the states biennial budget combined with matching funds of $350,000 from Delta Dental of Wisconsin. The Alliance requires a small administrative fee (10%) to cover the cost of staff time, travel and program materials. Additionally costs for travel to the annual meeting can be included in the budget. Funding for indirect costs are not allowable in the submitted budgets, nor are costs associated with dental cleanings or other non-evidence-based practices. Additionally funding to cover the cost of a dentist is not allowed either as the practice act in Wisconsin allows dental hygienists to determine the need for sealants and provide all care associated with this program in school settings. All other funding is awarded to programs in the form of mini-grants. Funding is typically awarded to programs using a cost per child estimate which typically is between $50-$70/child however, can be significantly lower depending on program size and insurance status of the children served. Our funding formula for programs is the overall cost of the program minus any in-kind funding, other grants and Medicaid funding to arrive at the total grant award.

Using SEALS data it has been calculated that the cost to seal a child is approximately $110.00 per child which includes both actual costs in addition to in-kind donations to programs. Initial program cost can be higher due to the need to purchase portable equipment but this is usually a onetime expense unless the program is expanding and needs additional equipment. Annually the largest amount of funding awarded is to cover staff time for those directly involved in providing oral health services to the children served.

Lessons Learned and/or Plans for Improvement:

Rapid growth resulted in unexpected challenges with calibration, SEALS data entry and communication. SAS administrators touch base with programs more regularly through site visits, phone calls and an online mid-year review to assist in addressing technical assistance issues earlier.

The implementation of evidence-based guidelines and best practices for school-based programs has resulted in the development of policies that increase overall efficiency and effectiveness. These policies are located in the SAS Administration Manual that was developed in 2012. The policy manual was a result of a variety of policies being put in place and the need for them to be centrally located so SAS administrators could ensure all programs had the same information readily available to them.

The SAS program has implemented a policy that ensures programs are targeting schools with the largest concentration of high-risk children. SAS funds must only be used for schools where more than 35% of the children enrolled are eligible for the free and reduced meal program. As a result, there has been an increase in the number of low-income children that receive preventive services through the SAS program.

All SAS programs are required to apply fluoride varnish two to three times per year to each participating child. The implementation of this evidence-based policy has been an effective way to ensure that participating children are getting additional preventive treatment throughout the school year. This policy has also assisted programs with sustainability through added Medicaid revenue.

As a result of updated evidence-based guidelines, compiled by national expert workgroups at the American Dental Association and the CDC focused on school-based programs, SAS policies regarding specific materials and placement techniques have improved retention rates, which now exceed 90% annually. All programs are required to check for retention on a sample of at least ten percent of the children in each school receiving sealants in the prior school year.

Another valuable policy that has been implemented is the requirement of individual SAS programs to bill Medicaid for dental services provided to Medicaid enrolled children. By implementing this policy, the SAS administration has realized that the generated revenue is allowing individual programs to be more sustainable. The gains made through this policy change have allowed for further expansion of Wisconsin SAS.

Ongoing technical assistance and site visits by program administrators has increased efficiencies and helped to identify best practices that should be shared with other programs. Additionally, the ability for programs to network and share their own lessons learned has encouraged program improvement at the local level.

Currently SAS administrators are working with partners at Delta Dental of Wisconsin and the Marshfield Clinic Research Foundation to improve the SEALS software program. Changes will include making this program web based and improve workflows onsite at schools. This change also will allow programs to better track children over time and if they move from one school to the next. After piloted in Wisconsin this program may be available for other states to utilize.

CDC funding has allowed the Wisconsin DHS Oral Health Program to expand over the years. Having an oral health epidemiologist has offered the expertise to pull together Department of Public Instruction Data and GIS mapping to demonstrate reach and more recently a targeted effort to improve data quality.

Available Information Resources:

We have developed a variety of tools and resources for programs which are available on the Wisconsin Seal-A-Smile home page and addition resources which are on the Alliance Oral Health Resources website.

As a CDC funded state Wisconsin has been participating in presentations through the CDC Communities of Practice lunch and learns for state based sealant programs. SAS administrators are willing to work with other states in program development and implementation upon request.

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)?

Most notably the release of the Wisconsin third grade Basic Screening Survey data shows a dramatic increase in the percentage of third graders who have sealants and decrease in the amount of untreated decay. Third graders with sealants have increased from 47% in 2001-02 to 61% in 2012-13. Untreated decay rates have dropped from 31% to 18% in that same time frame. Additionally, the disparity of children in schools with high FRMP compared to those with lower numbers of participants has been erased. A higher percentage of children in schools with high FRMP participants have sealants than those in schools with lower FRMP participants. Overall the SAS program has grown from 6 to 42 funded programs serving 60 of Wisconsin's 72 counties. The program has grown to serve over 33,000 children with preventive services including over 21,000 with sealants.

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.

Between 2009-10 and 2013-14 the program has maintained approximately the same amount of funding however, annually the number of programs and children served has continued to rise. Programs are finding more efficient methods of providing care along with maximizing their efforts around billing Medicaid. Additionally, programs policies put in place have improved retention rates ensuring more children have sealants that are protecting their teeth from decay. Funding programs are finding ways to increase participation at individual schools which makes them more efficient and have even found they can see more children annually with the same amount of time due to improved workflows.

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?

Some of our funded programs have been able to reduce and/or eliminate the need for grant funding because of their ability to bill Medicaid and work efficiently. Program administrators continually work with programs to find ways to save on costs and improve work flow to continually strive towards sustainability. Continued funding from state general purpose revenue along with leveraged matching dollars from Delta Dental of Wisconsin assures that the program will continue to grow. We have been able to use data collected through SEALS to show a need for continued growth to have an even bigger impact. Funding has increased for this program from $60,000 annually to more than $600,000 since 1999. Without data we would not have had the ability to share with our funders the need for continued or expanded funding.

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 partners involved in this program are quite unique. The collaboration between the state oral health program and the Alliance allows the program to have broader reach and efficiency. Since 2009 a partnership with Delta Dental of Wisconsin to fund the programs has brought another unique partner to the table. This public/private partnership has allowed for growth and leveraged funds which have significantly impacted the program's success. More recently a partnership with Marshfield Clinic's (Wisconsin based healthy system) Research Foundation has been established to develop a new data collection tool. The SAS programs partnerships with community based providers statewide has allowed the program to be integrated into schools across Wisconsin. Local partners have been able to educate local leaders on the importance of oral health and they too have been able to leverage local funding and support for their programs.

Objectives/Rationale

How has the practice addressed HP 2020 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?

Findings from the recent third grade oral health survey exceed Healthy People 2020 objectives on dental sealants and untreated decay. We still are falling short on meeting the objective on caries experience which demonstrates a need for earlier interventions. This program has increased the number of children who use the oral health care system and because our program targets children based on socioeconomic status we ensure that low-income children are accessing care. Several of our funded programs are Federally Qualified Health Centers which has increased their role in the oral health care system as well. Some of our outreach efforts have focused on partnerships with local public health departments which again addresses a Healthy People 2020 objective. Many of our funded programs are local health departments and when a community is served by a different provider than the health department we stress to the partner that development of a relationship with their local health department is imperative. All of the above address the objectives from Health People 2020.

Extent of Use Among States

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

Over the years we have worked closely with other states in the development of the state oral health program's sealant programs. The sharing of documents, policies and lessons learned has been ongoing with states across the county. SEALS was developed in collaboration between CDC and the Wisconsin SAS program and is now being used by many programs as well. The full extent of how our work has been used by others is not fully known but in the spirit of championing improvement we are always willing to share with other states any things we have developed or learned going forward.