

Project Name

South Dakota Great Faces. Great Smiles: An Ounce of Prevention

Project Summary

The goal of the Great Faces. Great Smiles: An Ounce of Prevention project is to increase the oral health literacy of underserved populations in South Dakota with a statewide health promotion/education program that identifies the challenges associated with prevention of oral diseases and implements a campaign to improve the oral health habits of the target population, ultimately reducing the burden of oral diseases for South Dakota children. The project is a collaborative effort of the South Dakota Oral Health Coalition and is being led by the South Dakota Dental Foundation, the Department of Health and Delta Dental of South Dakota.

A portion of the project proposes to reduce dental decay in Head Start children by training Head Start staff to teach Head Start children, and their parents, good oral health practices. The project will use local dentists and hygienists to train Head Start staff, and to give staff instruction materials and provide tooth paste and tooth brushes for the families receiving instruction.

Anyone interested in receiving the training and the materials for teach parents and children should contact Paul Knecht at (605) 224-9133 or at paul@sddental.org. The training for the staff is also available on line via the Partners for Prevention Program which can be accessed through the SDDA web site: www.sddental.org

Contents

Project Page.....	1
Problem Statement/Project Description	2
Goals and Measurable Objectives	4
Evaluation.....	7
Replication/Portability.....	8
Budget Narrative	8

Budget 10

Appendices

PROJECT DESCRIPTION

The adage “an ounce of prevention is worth a pound of cure” perfectly describes the Great Faces. Great Smiles: Ounce of Prevention project. According to the Centers for Disease Control, roughly 60% of children have one or more cavities by age five. So by the time children are typically seen in a dental office (around age three) the disease process has already begun. In order to turn the tide on the problem, efforts must focus on disease prevention through a multifaceted approach.

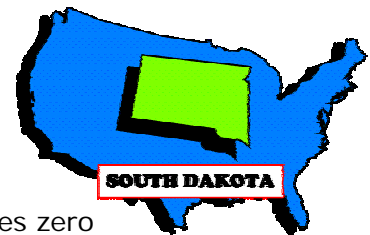
In the past four years, the South Dakota Oral Health Coalition has focused on projects that improve access to dental care and address the dental workforce shortages that will likely always be an issue in South Dakota. However, fixing cavities does not eliminate dental disease, it simply treats it.

The Ounce of Prevention project is essentially a two-part project. Part one is to conduct surveys and focus groups to learn more about what prevents primarily low-income populations from taking care of their teeth. Delta Dental of South Dakota will conduct a survey of the Medicaid population and the Department of Health will conduct focus groups of the WIC and Head Start populations. In part two, the project team (consisting of Paul Knecht of the South Dakota Dental Foundation, Connie Halverson of Delta Dental and Julie Ellingson of the South Dakota Department of Health) will use the research data to develop coordinated interventions that will include training programs, educational materials, supplies and an oral health messaging media campaign.

According to the Institute of Medicine’s Committee on Capitalizing on Social Science and Behavioral Research to Improve the Public’s Health, health interventions should include “downstream” individual-level phenomena (e.g., individual and lifestyle factors), “mainstream” factors (e.g., population-based interventions) and “upstream” societal-level phenomena (e.g., public policies.). The Ounce of Prevention project addresses the first two.

Geography: This project will be implemented across the state of South Dakota.

Demographics: Because Head Start has recently increased their emphasis on oral health, the primary target audiences for the project will be the approximately 10,000 parents/children enrolled in South Dakota Head Start programs. Additionally, roughly 19,000 enrollees in the South Dakota WIC (Women, Infants and Children) program will be targeted. Both of these programs target children ages zero through five and their families. Also included will be the roughly 2,500 low income children seen annually on the Ronald McDonald Care Mobile. (The Care Mobile program, operated by Delta Dental, is a mobile dental unit that treats underserved South Dakota children ages 0-21.)



The project team expects to reach 12,500 children and their families (Head Start - 10,000 and Care Mobile - 2,500) through train-the-trainer programs and with oral health supplies like toothbrushes/toothpaste. Further, we will reach 31,500 people with targeted oral health written materials (12,500 Head Start and Care Mobile and 19,000 WIC eligibles). Finally, we can potentially reach an audience of nearly 350,000 with a targeted media campaign.

Problem Statement

In Jonathan Kozal's book *Savage Inequality*, Kozal describes the poor oral health of low income children and states that "children will live for months with pain that grown-ups would find unendurable." Dr. Burton Edelstein, founder of the Children's Dental Health Project, has said that "dental pain is like walking around with a rock in your shoe. You can learn to live with it, but it dramatically affects your overall well being."

Tooth decay remains the most prevalent disease of childhood, and low income is the greatest predictor for development of early childhood tooth decay. Low-income children have the greatest odds of having tooth decay, have the most severe experience with tooth decay and are the most likely to have untreated cavities. Low income children in South Dakota are also those least likely to visit a dentist both because of access issues and because many parents lack understanding of the importance of good oral health. These problems manifest themselves in pain, self esteem issues, etc., and evidence is increasingly showing links between oral health and general health.

In addition to how oral diseases affect individual children, there are extensive costs associated with treating dental problems. For every child who has to have his/her teeth repaired under general anesthesia at a surgery center or operating room, the average cost in South Dakota is estimated at \$6,000-8,000 per case (full rate). In FY 2005, the South Dakota Medicaid program paid for 807 dental surgery center cases for children under 21. These costs do not include risks to the child associated with general anesthesia.

Conversely, a recent study from the University of North Carolina showed that children who had an early preventive visit at age one could have a reduction in dental costs of close to 50% by age five. This reduction in costs does not measure the reduction in disability, pain, lost school days, lost work for parents or sleepless nights that children with severe tooth decay experience.

Yet in South Dakota, and nationally, significantly more emphasis has been on treating the disease rather than preventing it.

According to national statistics from the Children's Dental Health Project, indicators of the problem are:

- 80% of tooth decay is concentrated in 25% of children.
- Children ages 2-11 in families with income under \$18,000 are nearly twice as likely to experience decay as children in families with twice that income level (55% vs. 31%)
- Children in poverty are more than twice as likely to have untreated cavities as their higher income peers (33% vs. 13%).

The 2003 South Dakota Oral Health Survey of third graders indicated that 67% of the children screened have had decay (compared to 63% in 1995-1997). Of those, 30% needed treatment and 5% needed urgent care because of pain or infection.

Anecdotal evidence shared by the Ronald McDonald Care Mobile staff of the children they are seeing vividly illustrates the extent of the problem for low-income children:

- A 15-year-old from Aberdeen, South Dakota, with decay on 71 surfaces in his mouth
- A seven-year-old from Sioux Falls with six abscesses in her mouth
- A four-year-old from the Cheyenne River Reservation who had such severe early childhood caries that her front teeth were black and nearly crumbling.

While these cases may be extreme, the Care Mobile staff estimates that one in 12 of the children seen through the program have had an abscess. Additional statistics from the Ronald McDonald Care Mobile indicate that 24% of the patients seen in the past six months

do not brush their teeth daily and for 25% of the patients, their visit to the Care Mobile was their first dental visit.

Baseline Data

In South Dakota, the data from the 2003 Behavioral Risk Factor Surveillance System (BRFSS) report found 76% of parents/caregivers of South Dakota children ages 0-4 reported that their children had never visited a dentist. Almost 83% of those parents stated that the main reason for not having visited a dentist was that they "had no reason to go". Also, according to the SD Department of Social Service's annual Early and Periodic Screening, Diagnostic and Treatment (EPSDT) 416 Report, only 24% of South Dakota Medicaid eligible children ages one through five received any dental treatment services in FY 2005. The fact that dental caries is due in part to bacterial transmission from the primary caregiver to the child, typically before age two, emphasizes the need for interventions to occur earlier in a child's life.

Finally, Head Start statistics show that nearly 35% of South Dakota children enrolled in Head Start were diagnosed as needing dental treatment in the 2004-2005 program year. This statistic will serve as the baseline tracking number for the Ounce of Prevention project's overall impact.

Needs Statement

While oral diseases are nearly entirely preventable, certain populations, particularly those categorized as low-income and minority, place a low level of importance on oral health and thus do not care for their teeth even though brushing is a simple and inexpensive preventive measure.

"They're just baby teeth" is what is heard frequently by the staffs of the Ronald McDonald Care Mobile and Head Start. While there is considerable information available on oral health, much of it is not geared toward low income populations who may lack the health literacy needed to understand the consequences of oral diseases.

A recent example of this is a multi-page brochure that was distributed at a Head Start meeting where the cover pictured a woman in a yoga outfit. While the brochure was well done, it did not fit the reality or reading levels of the target population. A comprehensive oral health prevention and education plan is needed to better define and learn about the target population, to determine what it will take to motivate them to take care of their teeth and to explore the settings, channels and activities best suited to reach the intended audience.

GOALS AND MEASURABLE OBJECTIVES

Project Goal: Our target populations, including low-income parents/caregivers and children, will place higher importance on good oral health and will ultimately change their oral hygiene habits to prevent future disease and maintain overall health.

We believe this is an achievable goal because one of the key members of the SD Oral Health Coalition, Interlakes Community Action Head Start, has essentially piloted similar elements of the project plan and has found them to be successful within their organization. According to Mendy Herke, health specialist, using a recently implemented train-the-trainer format, their home health visitors and teachers are more knowledgeable and comfortable in educating parents and children. "Education is making a difference in the oral health of our kids," said Herke.

General indicators of goal attainment will be:

- a reduction in the prevalence of caries among Head Start children measured through annual surveys

- an overall increase in awareness of the importance of oral health measured through focus groups and surveys

Objective I:

Through research, 1) learn about the environmental and situational factors that may prevent disadvantaged populations from taking care of their teeth and 2) determine what methods can be used to change their oral hygiene habits.

Activity One: Conduct a mail survey of selected Medicaid/SCHIP eligibles to determine their oral health knowledge and habits.

Target: Parents and caregivers of children eligible under the Medicaid and SCHIP program in South Dakota.

Total served: Approximately 10,000 surveys will be mailed with a desired response rate of 10 percent (which is about 10 percent of the total Medicaid population in South Dakota - 100,750 eligibles as of April 2006)

Project lead: Delta Dental of South Dakota

Project description: During the summer of 2006, Delta Dental of South Dakota will commission a survey of parents of Medicaid/SCHIP eligible children to learn more about the level of importance they place on oral health, their overall knowledge of the importance of oral health and what the status is of their current oral health habits.

Measures: Number of surveys returned, analysis of survey data.

Activity Two: Conduct focus groups of target populations to further elicit oral health knowledge and habits.

Target: Target will be primarily clients of the Women Infants and Children (WIC) and Head Start programs.

Total served: Roughly 50 focus group participants

Project lead: SD Department of Health

Project description: During the summer of 2006, the DOH will solicit an ad agency to conduct focus groups of WIC and Head Start participants to learn more about the level of importance they place on oral health, their overall knowledge of the importance of oral health and what the status is of their current oral health habits.

Measures: Ad agency uses qualitative analysis to provide results/recommendations to State staff and other project team members

Activity Three: Work with ad agency to create messaging for target populations

Target: Messages directed to low-income families

Project lead: SD Department of Health

Project description: Using the survey and focus group results, the project team will work with the selected ad agency to develop communication materials to help spread a consistent message about oral health in South Dakota.

Measures: Qualitative analysis of survey and focus group data.

Objective II

Using the research results, implement an oral health social marketing campaign that targets low-income populations.

Activity One: Implement a train-the-trainer program

Target: WIC Nurses, Head Start staffs, day care providers, school nurses

Total served: 120 trainees

Project lead: SDDF/SD Department of Health

Project description: The Dental Foundation will use contract staff and volunteers (geographically spread across the state) to incorporate what was learned from the surveys/focus groups into existing curriculums and then train Head Start staffs and WIC nurses (and others as resources permit) who are in contact with the target populations on how to educate parents (often in a one-on-one situation) about oral health issues. Trainers will teach using the existing curriculum of the Partners for Prevention project and lesson plans and activities available on the South Dakota Health EDventures website. The goal of this activity is to sustain the project by ingraining oral health education into existing programs. Additionally, Julie Ellingson, oral health coordinator for the Department of Health, will provide the training for WIC nurses.

Measures: Number of trainings/contacts and number of participants attending.

Activity Two: Provide various materials to the trained workers to share with parents.

Target: Head Start and WIC nurses and ultimately, parents/children

Total served: 120 Head Start and WIC staffs and 31,500 Head Start and WIC parents/children

Project lead: SDDF/Department of Health

Project description: Head Start staffs and WIC nurses will receive training materials and supplies to hand out to their participating families. Materials will include lift-the-lip charts; supplies will include toothbrushes/toothpaste and print materials to be shared with children/parents. Statistics say that it takes about 21-28 days to form a habit. By providing a toothbrush and larger tube of toothpaste (at a cost of about \$1.00 per person) we hope our target families can form positive oral health habits that can last a lifetime.

Measures: Number of materials distributed.

Activity Three: Using the communications materials developed by the contracted advertising agency, run a media campaign to complement the train-the-trainer sessions.

Target: Low-income South Dakotans (primary), all other viewers (secondary).

Total served: Potentially 350,000 South Dakotans (as estimated by Delta Dental's ad agency)

Project lead: Project team

Project description: A media campaign to include television spots and possibly outdoor advertising and radio public service announcements will run starting in January 2007.

Measures: Number of media spots run.

Project Timeline

Activity	2006					2007								
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Survey of Medicaid parents complete	•													
Focus groups and message development complete	•													
Begin search for five trainers		•												
Contract with ad agency to purchase media			•											
Contract with trainers				•										
Train trainers					•									
Begin media campaign						•								
Trainers begin trainings						•								
Media campaign runs						•	•	•	•	•				
Trainings continue							•	•	•	•	•	•	•	
Begin evaluation of media campaign												•		
Trainee Survey														•
Analyze BRFSS data (annually)														•
Head Start begins evaluating data														•

EVALUATION

Impact: The true impact of the Ounce of Prevention project will be measured over the long term by the decrease in the amount of Head Start children needing dental treatment. This is measured annually by the Head Start Program Information Report (PIR). During the 2004-

2005 program year, the PIR for South Dakota indicated that 34.47% of Head Start children were diagnosed as needing treatment. With 35% as a baseline, lowering that number will be indicative of project success. Because the statistic is already tracked by Head Start, they will share this data with the project team. While Head Start is a subset of the total target audience, the project team believes the data is representative of the target population.

Outcome: The general outcomes for the project will be improved oral health literacy and a change in habits of the target population. These will primarily be measured through a focus group of Head Start/WIC participants to assess the impact of the media campaign. The focus groups will be held at the end of the project and will be conducted by the ad agency hired for the initial focus groups.

The Department of Health's BRFSS annual telephone survey asks, "What is the primary reason for not taking your child (age 0-4) to the dentist?" This question will be tracked to determine if the 83% baseline data from the 2003 report will improve after the project ends. A declining number will indicate that increased oral health literacy, which includes understanding the need to access services, is improving. Another measurement tool will again be the Head Start PIR report which asks whether children have received preventive oral health care. During the 2004-2005 program year, 68.73% of the children received preventive care. The goal is for that number to increase, indicating that Head Start staff and parents are placing a higher emphasis on prevention. A simple survey will also be done of the Head Start staff and WIC nurses who participated in the initial training to measure their increased level of knowledge and comfort level in delivering oral health information.

Process: The project's process measures for Objective I will include the number of surveys returned from the Medicaid survey conducted by Delta Dental. Both qualitative and quantitative analysis of the survey data will be used in the development of the project print materials and media campaign. Similarly, qualitative analysis will be used to analyze the results of the focus group sessions and message development sponsored by the Department of Health.

The process measures for Objective II will include the number of trainings conducted by the contract trainers and the attendees. These will be tracked by the Dental Foundation. We will also measure the number(s) of materials distributed through the project. For the mass media campaign, we will track the number of television spots run, the number of in-kind spots run and the estimated total reach of the campaign.

REPLICATION/PORTABILITY

According to the National Cancer Institute's "Pink Book", successful health communications programs involve more than the production of message and materials. They use research-based strategies to shape the products and determine the channels that deliver them to the intended audiences. The book also states that the most effective social marketing campaigns use a diffusion of innovations model that uses multiple levels of influence, effectively "layering" the message channels to provide the greatest impact.

To that end, the Ounce of Prevention project will complement another Oral Health Coalition project, Partners for Prevention, which is training primary care medical providers in oral health assessment of young children. The Partners project will provide another layer of messaging to the target audience of this project.

While other entities are addressing oral health promotion, few have used the in-depth research that is a significant element of this project. The Ounce of Prevention project should demonstrate whether a better understanding of the target population and better messaging and dissemination of the message can in fact improve the oral health literacy of a target population.

In a real sense, this project provides a “learning laboratory” for other entities – a place where *communities* of interest can be easily engaged, where change can occur quickly, and where planned evaluation can be both rapid and direct. The collaborative process that developed this proposal will be reflected in its implementation, evaluation and shared results. We anticipate that with the additional leveraged funds from Delta Dental and the Department of Health, we will be able to demonstrate significant improvements in the knowledge and habits (oral health literacy) of our target population—and in the end, share those result with others.

BUDGET NARRATIVE

The budget reflects the planned activities that must be implemented to reach the project’s goals and objectives. Total expenditures for the year are projected at \$182,850 with requested Wellmark funds representing \$61,575 of this total and in-kind donations and matching funds representing \$121,275 of the total. The line item justification is as follows:

Personnel Costs

All personnel costs will be considered in-kind contributions. The project team, consisting of staff from the Dental Association (Paul Knecht, executive director, Annette Hinker, member services coordinator and Brenda Goeden, event planner), Connie Halverson of Delta Dental and Julie Ellingson of the Department of Health expect to each spend roughly six hours/week on the project.

Contractual

The Dental Foundation will contract with five dental staff to conduct 26 presentations to all Head Start agencies and other providers starting in January 2007. The trainers will be paid \$75/training.

Matching Contractual Funds

Delta Dental will contract with the Business Research Bureau at the University of South Dakota to conduct a survey of Medicaid parents/caregivers and to provide the analysis of the survey results to the project team. Cost for the survey and analysis is estimated at \$23,000. Through a request for proposal process, the Department of Health will contract with an advertising agency to conduct focus groups of WIC and Head Start participants (estimated at \$13,000) and subsequently develop messaging for a mass media campaign (estimated at \$27,000).

Travel and Administration

The grant will pay for the travel costs of five contract staff estimated at \$1,050 per hygienist. Other travel costs and offices expenses will be provided in-kind from the Dental Foundation, the Department of Health and Delta Dental totaling \$5,300.

Supplies

The grant will provide oral health supplies (tooth brushes/toothpaste) for roughly 12,500 Head Start and Care Mobile families. Also included in the supplies budget are training materials (120 flip charts) for each Head Start region and each WIC nurse. The budget includes postage for mailing the supplies to the targeted outlets.

Promotional

Because the Department of Health has committed to paying for message development, the actual implementation of the media campaign will be paid with grant funds. A \$25,000 television buy will be matched spot for spot by local media outlets and will generate 2,500 television spots.

Approximately \$4,800 will be spent on printing two simple brochures for the target population.

Evaluation

A focus group evaluation will be completed toward the end of the grant period to evaluate the effectiveness of the trainings and the mass media campaign. Each partner in the project will contribute \$2,000 to the focus group effort for a total of \$8,000.

Sustainability plan

This project is the start of the Coalition's prevention and education efforts. The train-the-trainer aspect of the program will be sustained through the educational programs conducted annually during National Children's Dental Health Month (February). The materials and media efforts will need to be purchased again, and the project team has already discussed additional funding sources to continue the project. Further, because the prevention efforts must start at the earliest stages to be most effective, the team is also considering an expansion of the program to include pregnant women and their access points for training. Potential funding sources will be identified for the expansion.

Budget Items	Wellmark	Dept. of Health	Delta Dental	Dental Assn.	Media	TOTAL
Personnel - planning/development/implementation/evaluation						
Connie Halverson - Delta Dental			\$10,500			\$10,500
Paul Knecht - SD Dental Assoc				\$12,500		\$12,500
Annette Hinker – SD Dental Assoc				\$2,300		\$2,300
Brenda Goeden				\$2,100		\$2,100
Julie Ellingson - Dept of Health		\$2,700				\$2,700
Contractual						
Trainers (5 hygienists, 26 presentations/year @ \$75/training)	\$9,750					\$9,750
Survey of Medicaid Patients/Parents			\$23,000			\$23,000
Focus Groups (WIC, Head Start, etc.)		\$13,000				\$13,000
Message Development - Ad Agency		\$27,000				\$27,000
Travel and Administration						
Contractual presenter travel (5 @ \$1,050)	\$5,250					\$5,250
Meetings w/ DDS, HS, WIC		\$2,400		\$1,000		\$3,400
Office expenses (phone, copies, postage, etc)		\$500	\$600	\$800		\$1,900
Supplies						
Toothbrushes (12,500 @ \$.30)	\$3,750					\$3,750
Toothpaste (12,500 @ \$.65)	\$8,125					\$8,125
Lift the Lip Charts (120 @ \$9)	\$1,100					\$1,100
Shipping and Postage	\$1,800					\$1,800
						\$0
Promotional						\$0
Television Ads (number of ads)	\$25,000				\$25,000	\$50,000
Print piece 1 (number)	\$2,400					\$2,400
Print piece 2 (number)	\$2,400					\$2,400
Evaluation	\$2,000	\$2,000	\$2,000	\$2,000		\$8,000
TOTAL	\$61,575	\$47,600	\$36,100	\$20,700	\$25,000	\$182,850

Matching Funds
In-Kind Funds

