

1. What measurable goals did you set for this program and what indicators did you use to measure your performance? To what extent has your project achieved these goals and level of performance?

Goal:

The goal of More Smiling Faces in Beautiful Places (MSF) is to eliminate oral health disparities among minorities, children with special needs and those economically disadvantaged who are uninsured or underinsured, focusing particularly on the needs of children from birth to age six and children and adolescents with special needs.

The components of the program include:

- Creation of an integrated oral health network of dentists, physicians, nurse practitioners, dental hygienists, public and private health providers, community health centers, and churches to increase access to oral health care
- Provision of pediatric oral health training programs for medical and dental professionals
- Establishment of a system to link medical homes with oral health care providers, provide patients with resources, screen for eligibility in Medicaid or other insurance programs, and arrange patient transportation
- Empower parents and families through educational guidance and support to become effective managers of their children’s oral health care needs.

The two overarching measurable goals for this project were:

1. Increase the percentage of Medicaid/SCHIP eligible children age six and under who receive any dental services to increase access to dental services for Medicaid/SCHIP eligible children under the age of six.
2. Increase the percentage of CSHCN Medicaid/SCHIP eligible children and adolescents under the age 20 who receive any dental services.

While both goals were achieved at the state level, this project was conducted in six rural counties. Dentists from other counties such as Jasper, Beaufort, Colleton, Saluda, Fairfield, Richland and Aiken were directly involved with the project. This may have resulted in diffusion of the project into other counties.

Measurable Goal 1: State

| | |
|--|--------------------|
| Increase the percentage of Medicaid/SCHIP eligible children age six and under who receive any dental services | |
| FFY 2002 | Percentage = 20.8% |
| FFY 2005 | Percentage = 26.6% |
| Difference between the two proportions = 5.8% Confidence Interval = 5.8% ±0.27% = 6% - 5.4% | |
| <i>Increase was significantly different</i> | |

Measurable Goal 2: State

| | |
|--|---------------------|
| Increase the percentage of CSHCN Medicaid/SCHIP eligible children age twenty and under who receive any dental services | |
| FFY 2002 | Percentage = 46.9 % |
| FFY 2005 | Percentage = 59.7% |
| Difference between the two proportions = 7.8% Confidence Interval = 7.8 ± 0.35 = 7.45% -8.15% | |
| <i>Increase was significantly different</i> | |

Integrated Network: State Level---MSF Steering Committee

This initiative was conceptualized, planned and advised by the MSF Steering Committee that included state level representation from the key stakeholders. This group remained engaged throughout this project as evidenced by the quarterly meeting minutes. Members of this group now serve on both the South Carolina Oral Health Advisory Council (SCOHAC) and the South Carolina Oral Health Coalition. The SCOHAC has included in the South Carolina State Oral

Payment Issues: no dental insurance, Medicaid eligible but not participating, stigma associated with using Medicaid program

Oral Health Knowledge: parents lack of knowledge about oral health and dental diseases, baby teeth are not important, inconsistent messages from medical or dental providers,

Dental Experience: history of negative dental experiences, distrust of dental providers

Parent Work Issues: unable take off time from work, many parents take a bus into the resort communities to work, sometimes 2 hours travel each way.

Communication Issues: no telephone access, language barriers

Following the community meetings the MSF Oral Health Coordinators formed local advisory committees for the grant activities and plan for integrating oral health into local systems of care.

The Greenwood County Early Care and Education Initiative proved to be an outstanding model of a community that has brought all resources impacting mothers and young children together and in collaboration developed a system that matches the mother and children with the appropriate services and agency. The patient navigator and the local MSF coordinator were responsible for incorporating oral health education and anticipatory guidance into the home visitation and parenting programs as well as in DHEC services such as Family Support Services, Prenatal and Postnatal Home Visits and WIC.

Patient Navigator (PN)

MSF goal was to improve oral health for children from birth to age six and children with special health care needs. A system of care was developed in the six target counties that began with infants, young children and children and adolescents with special health care needs receiving in the medical home an oral health risk assessment and anticipatory and a referral to the dental provider. Dental referrals made for children at medium to high risk for dental disease were coordinated by the MSF PN to ensure that the children became established in a dental home and received preventive, as well as disease management and/or reparative services.

Performance measures utilized for linking children referred from the medical home to a dentist:

- Percentage of children referred to the dental provider by the PN who receive a dental appointment
 - In Marion and Marlboro Counties from January 2004 to December 2005, 62% of the children who were referred through the PN received a dental appointment
 - In Greenwood and McCormick from January 2004 to December 2005, 50% of the children who were referred through the PN received a dental appointment
- Percentage of children who present for their dental appointment
 - In Marion and Marlboro Counties from January 2004 to December 2005 59% of the children who received an appointment and presented for their dental appointment
 - In Greenwood and McCormick from January 2004 to December 2005 71% of the children who received an appointment and presented for their dental appointment

Health District Oral Health Coordinator (HDOHC):

Due to the partnerships between the local Health Districts and physicians through public health nurses, the local Health District Oral Health Coordinators were invaluable in securing commitment from the health care providers.

The grant partially funded a health district staff member. A funding change in Medicaid has resulted in a loss of funding to the districts. In addition, the Maternal and Child Health Block Grant has been reduced. Consequently, there is only one health district that is continuing the oral health services of the local coordinator

Some Lessons Learned from PN and HDOHC:

- Interpreters for non-English speaking parents and children can be a challenge. Medical providers with interpreters on staff offered their assistance in making appointments and assisting dental office with communication.
- In rural communities, the PN found issues with telephone communication such as no access to a phone and disconnected phones.
- PN sent a thank you note following the completion of the child's dental appointment with educational material and a coloring book for the child. Parents have called PN to thank her for her assistance in making dental appointments.
- Local medical providers and their offices were more receptive to local health department staff with whom they have a relationship. It was important to make the local health department staff knowledgeable of the project and to get their support.
- Found that some medical practices did not want to apply fluoride varnish, said they did not want to "infringe on dentists' territory."
- Nurse parishioners in one county were more likely to use fluoride varnish
- Medical providers expressed concerns that there were not enough dentists to treat young children.
- Medical providers wanted feed back of how many children saw a dentist.
- Need to stay in contact with practices, give updates or refresher courses for new residents. Need to keep oral health message in the forefront and encourage referrals.

Fairfield County: Patient Navigator and the Fairfield County Health District:

The project was expanded to Fairfield County in August 2005. In this county the PN was employed by the Fairfield County Health Department and performed the duties of the PN. Previous history of community engagement in regards to oral health issues facilitated the implementation of the MSF project. Health Partners, a group of community leaders, had in the late nineties begun to explore ways to increase access to dental care in the community. FCHD began to think "out of the box" on ways to improve oral health. They began an oral health education and tooth brushing class for WIC participants. FCHD received an American Dental Association's Samuel D. Harris Foundation Grant for toothbrushes, dental models and oral health materials that the distributed to the local medical providers, childcare centers, WIC participants, and faith groups.

The PN in FCHD visited the agencies and healthcare offices to provide information about the MSF project. She found herself met with "open arms" because of the rapport that had been gained by the FCHD employee who was a key member of Health Partners and responsible for the creation of the previous oral health programs, as well as, the fact that the PN, a dental hygienist and a nurse, had been responsible for the development of the earlier oral health education program for WIC and the community. She was able to establish the medical-dental referral network in less than six months. In addition to referrals from medical providers, the PN

had referrals from the Fairfield County Hospital Emergency Room and the Department of Social Services. At the request of the physicians, she created a form to allow the dental offices to report patient care and status to the physicians. Another event key to the PN success was the opening of the Eau Claire Cooperative Health Care Center's Dental Clinic and the fact that the dentist had received the MUSC MSF Dental Training in August 2005. In addition, the dentist received in-office training with Pediatric Dentist Mentor, Dr. Rocky Napier.

Medical Training

Seventy-four physicians, nurse practitioners, physician assistants and registered nurses have received the *Pediatric Oral Health for the Medical Provider* training in small group sessions in the six pilot counties and Fairfield County. Training provided through this initiative is also consistent with the oral health education and anticipatory guidance in the *Bright Futures in Practice: Oral Health Guide* as well as recommendations of professional organizations such as American Academy of Pediatricians and the American Academy of Pediatric Dentistry. All trainings included a pre and post test and all trainings noted an improvement in learning for the group with a range from 8% to 32%. As a supplemental resource for the medical trainings, the MSF received permission to reprint the Crest *Smiles for Tomorrow* slides and notes and a laminated poster with examples of dental decay, tooth eruption and fluoride supplementation chart. In addition, the *Bright Futures in Practice: Oral Health* pocket guide was provided to each participant.

Most recently, Dr. James Curtis, Director of Palmetto Richland Dental Clinic and C. Veschusio, DHEC, DOH co-presented the Pediatric Oral Health for the Medical Provider training at the Pediatric Grand Rounds at Palmetto Richland Hospital. Following the presentation, Dr. Warren Derrick, Director of the Pediatric Residency Program has established meeting with Dr. Curtis and Ms. Veschusio to plan an oral health clinical training program for the University of South Carolina's pediatric residents.

In addition, Dr. Curtis and Ms. Veschusio have been invited to present *Pediatric Oral Health for the Medical and Dental Provider* at the Greater Columbia Dental Association's meeting with the local Pediatricians in September 2006. In addition, Dr. Curtis will be providing a course for general dentistry residents at Fort Benning, Georgia in April and Fort Jackson, South Carolina in May. He will include a section on early childhood oral health in course he will present at the Northeastern District Dental Society in Atlanta, Georgia in September 2006.

Smiles for Life: National Oral Health Curriculum for Family Medicine Education

The SC SAOHA Program assisted in funding the Society of Teachers of Family Medicine's *Smiles for Life* Curriculum that has been implemented in South Carolina at MUSC, Family Medicine Residency. Dr. Wanda Gonsalves, faculty at MUSC Family Medicine Program, in addition to integrating the new curriculum at MUSC FM Residency program, as a member of the South Carolina Oral Health Advisory Council has agreed to work on the policy issue relating to physicians reimbursement for oral assessments, education and fluoride varnish application.

Dental Training

A total of 92 dentists and 83 team members have attended the dental trainings throughout the grant period. There was a core group of five dentists who attended multiple MSF trainings and were directly involved in local project advisory groups and activities.

Three of the trainings were sponsored by MUSC, College of Dental Medicine in August of 2003, 2004 and 2005 under the direction of Dr. Carlos Salinas. There was a 61% increase in participation of dentists from 2004 to the 2005 MUSC training. An outstanding reference manual on pediatric dentistry was produced for each year's training.

Palmetto Richland Dental Center (PRDC) sponsored training *Infant Oral Health Programs in Your Office and Your Community* was held on October 15-16, 2004 that was coordinated by Dr. James Curtis. This training offered a clinical session that gave the participants a "hands on" opportunity to work with parents and infants in the dental setting. The course produced a manual and a DVD with the speakers' power point slides and video footage of the clinical session and the Atraumatic Restorative Technique.

Dr. Curtis, the Director of the Dental Residency Program at PRDC, will be adding in fall 2006 a second year to the dental residency program which will offer a special track for pediatric dental care. In addition he is working toward establishing a pediatric dental residency program at PRDC.

The core group of dentists previously mentioned has expanded their impact within their local communities. Dr. Karen Meeks has established a school based dental program in one pilot county, Dr. Harold Rhodes and Dr. Leonard Davis have worked with Head Start in another county to open an onsite dental clinic and the Dental Director at Beaufort Jasper Hampton Comprehensive Care Center, where Dr. Yulinda Rhodes is the Dental Director, has applied for funding to open a clinic in one of the target counties. This clearly demonstrates the importance of including dentists in local community health planning.

Patient Navigator and Oral Health Outreach Faith Communities

The Patient Navigator (PN) in Marlboro, Marion, and Chesterfield Counties and the PN in Greenwood and McCormick counties trained over 110 churches. They provided oral health education to congregations through a variety of forums such as Vacation Bible Schools, Summer Feeding Programs and church youth events.

Lessons learned:

- Need to identify and establish a working relationship with key "gatekeepers" of the churches.
- Work through the faith based association rather than individual churches
- Collaborate with churches to participate with already scheduled activities.

Sustainability:

- The lay health ministers have been trained to incorporate oral health education into their church health ministries.

Parent Education

Patient Navigators worked with coordinators of existing organizations such as Healthy Start, Head Start and First Steps that serve parents of young children to provide oral health education. The Healthy Start Rural Outreach Workers have been trained and have incorporated oral health lessons with their caseload of young and expectant mothers. The local First Steps organization has included oral health education opportunities into their Annual Meeting agenda. WIC participants will continue to receive oral health education provided by the local health department.

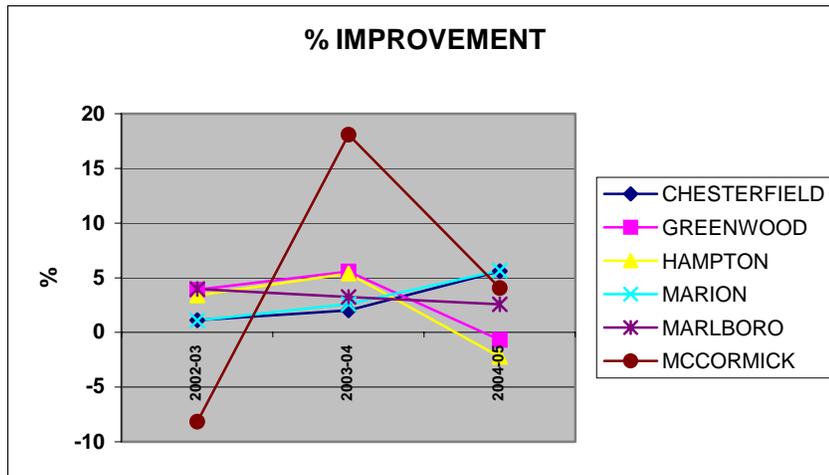
Impact of RWJ Outreach Activities

During the time period 2003-2005, 1215 RWJ events related events took place in the counties. The county breakdown of the events is as follows.

| County | Number of activities |
|--------------|----------------------|
| Chesterfield | 199 |
| Hampton | 85 |
| Marion | 733 |
| Marlboro | 120 |
| McCormick | 2 |
| Greenwood | 76 |

The majority of the oral health activities occurred in Marion and Chesterfield Counties. This fact can be correlated with Medicaid utilization, as Chesterfield and Marion Counties are the only ones with a sustained improvement in the Medicaid utilization (Figure 1). Of interest to this observation is the fact that in Chesterfield County, the medical to dental referral network was never actualized; however, one Chesterfield County dentist attended the MUSC Dental Training in August 2004.

Figure 1: Percentage of Improvement in Medicaid Utilization for Ages 1 through 5 in Pilot Counties



AME Church

The AME Church has played an integral role in lay oral health education throughout the duration of this project. In 2003, the then Bishop Belin introduced the initiative to the congregations by designating February 22, 2003 as Oral Health Sunday. His proclamation letter was read from the pulpit of the then 609 South Carolina AME Churches. Toolkits were sent to all churches and three congregations hosted a Dental Health Fair.

On February 19, 2005 the Women’s Missionary Society sponsored a Dental Health Summit for 125 of its members. The keynote speaker, Rev. Dr. Allen W. Parrott, the Presiding Elder, Kingstree District, gave an outstanding review of the importance of oral health as part of total health for children. Andrea Grant, DDS, also an AME, also discussed the importance of children’s oral health. Mary Kenyon Jones, from the MSF project gave simple examples on developing oral health messages for the faith community. Barbara Laurie, an AME, SCDHEC Social Worker and a key member of the Hampton MSF project, spoke on the topic of engaging other faith groups in partnership for oral health. Each of the seventeen districts was given toolkits including an animal puppet for tooth brushing instructions and the “Building Bridges in your Community” lay oral health curriculum.

Following the summit the WMS included oral health into health fairs, school rallies, prenatal classes, Church School Conventions, and Child Care Centers. One conference conducted twenty-five childcare center programs that included a video on going to the dentist, a dental related story, and an appropriate lesson from the Building Bridges Curriculum. Each child was given a dental health plan to take home and complete with its parent. The centers reported that 2/3rd of the children returned the plans. Children received a healthy snack at the completion of the session.

Childcare Center Training

A training session for the Child Care Center *Oral Health 101* curriculum was conducted at the South Carolina Dental Hygiene Symposium on September 2005 and to the Greater Columbia Dental Hygiene Association in October 2005. Both groups received a training manual during the presentation. All hygienists trained (75) will receive an order form for the *Oral Health Activity Guide* for infants, toddlers and 3 to 4 year olds and the corresponding *Parent Information Booklet*. As part of the training, hygienists were encouraged to serve on local childcare center advisory boards and to play a more active role in collaborating with early childhood education programs either individually or as local components of their association.

Midlands Technical College's Dental Hygiene Program (DHP)

The DHP will be conducting an interdisciplinary project with the Early Childhood Education Program where the ECCP students come to the Dental Hygiene Clinic for an oral assessment and education. Following the clinic activity, the dental hygiene students will present the *Oral Health Activity Guide* (infants, toddlers and 3 to 4 year olds) and the corresponding *Parent Information Booklet* to the ECEP students.

Edventure –SCDHEC DOH Partnership

SCDHEC will be working with EdVenture, the Columbia based Children's Museum. EdVenture has launched a statewide childcare center staff training initiative and have agreed to integrate the *Oral Health Activity Guide* and *Parent Information Booklet* into their training. SCDHEC will conduct training with EdVenture in April 2006. In addition, the Congregational Nurses have requested training for April 2006.

WIC and ACTS Training

SCDHEC has provided training for WIC staff on oral health risk assessment, anticipatory guidance and referral to a dentist in February, March, April and May 2006.

First Birthday Card

In 2004, Hyde Park Communications conducted focus group testing in order to create the South Carolina Oral Health Social Marketing Plan. One finding was the fact that most adults were not sure when the first dental visit should occur. The plan developed included the *First Birthday Card* that was developed through this project. This card was distributed to all physicians and dentists who were contracted with the MSF project. In addition, the WIC program is now using the card at the one-year recertification visit.

Communicare and Calendars

Communicare, a non-profit organization that has dental clinics located on three rural school campuses partnered with the MSF grant to produce a *Back to School Calendar* that included oral health messages beginning with infancy through adolescence and Medicaid information. Communicare utilized this calendar in their Health Education Campaign from March to October 2005.

The MSF project made the calendars available to medical and dental providers, Head Start, First Steps, Healthy Start, and WIC through the local coordinators and the patient navigators. In addition, the DHEC School Dental Prevention Program distributed the calendars throughout the schools served.

Oral Health Cube:

One essential component of an integrated service delivery system is an integrated data system. The DOH contracted with the South Carolina Budget and Control Board's Office of Research and Statistics to develop an Oral Health Cube. The cube permits the joining data together from various data sources and defining multi-dimensional aggregates of data (known as "cubes") that permit analysis, layering, and drill-down in a user friendly mode through web-enabled secure sites. The DOH and ORS have identified the characteristics (called dimensions) from the various databases stored at ORS that have relevance to understanding and evaluating oral health outcomes of consumers served by Medicaid and DHEC oral health programs. Characteristics will include but not be limited to demographics, socioeconomic, social service and health agency service utilization, hospitalization and emergency room visits.

2. Did the project encounter internal or external challenges? How were they addressed? Was there something RWJF could have done to assist you?

Barriers to the MSF Project:

Internal: Due to the fact that there was no existing dental public health infrastructure within the local Health Districts in the pilot counties, the Health District Oral Health Coordinator and other local Health District staff were critical to the success of the project.

External: Multiple partners and contractors initially were a barrier to insuring that the goals of the objectives were maintained throughout the project. Another barrier was the fact that the six counties were not geographically continuous, which made direct communication a challenge. The Project Management Team meetings prior to the Steering Committee Meetings on a quarterly basis were the primary mechanism utilized to plan, implement and evaluate the activities of the grant. Email was also used for communication purposes.

3. Have there been other sources of support?

Communicare—Calendars: Communicare contributed \$5,000 from another grant toward the development and printing of the calendars.

4. What lessons did you learn from undertaking this project?

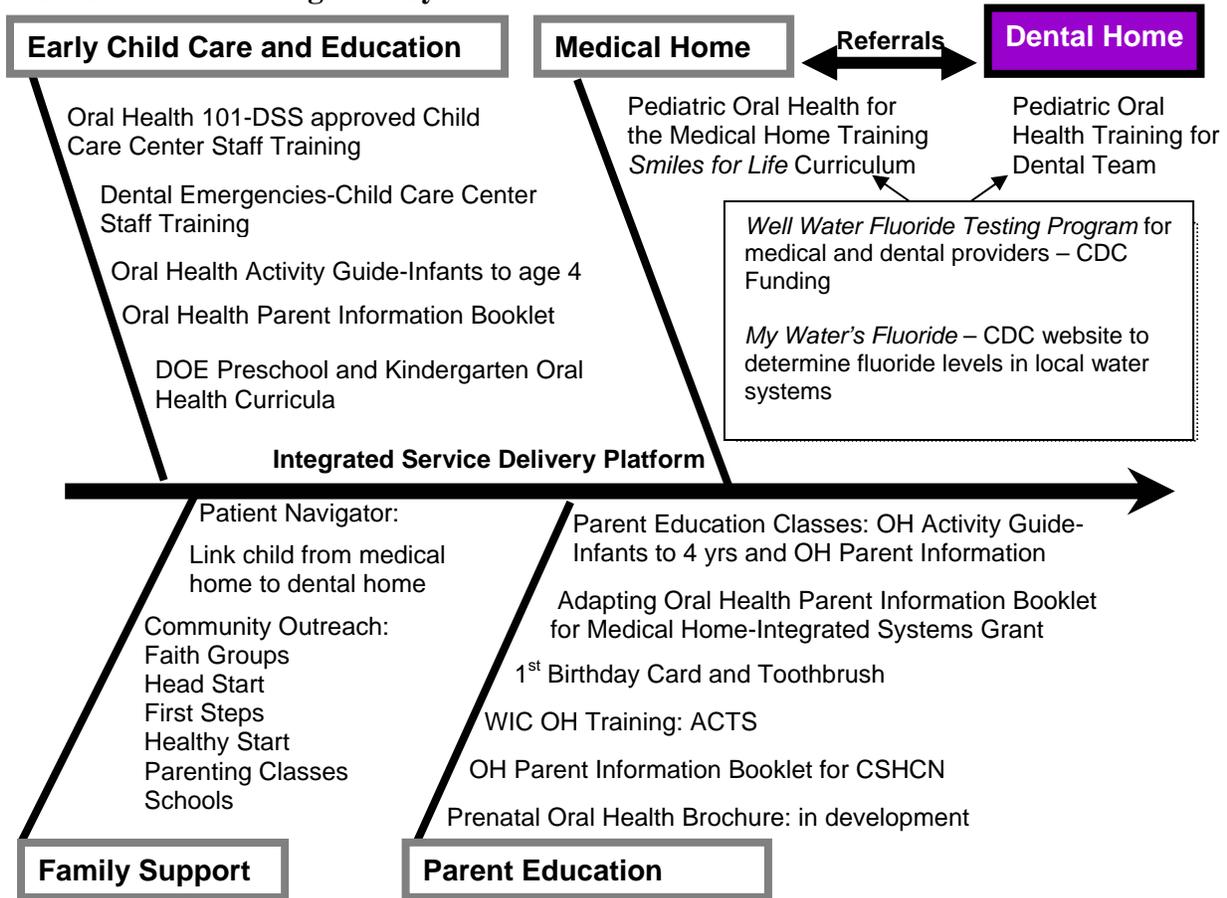
There has been a wealth of knowledge gained throughout this project, some of which is integrated into the body of the report. Several key lessons are:

- Health district support is important in developing integrated systems on the local level.
- The dental community needs to be active partners in improving access to dental care.
- The Dental Medicaid Program, as primary payer for children's dental services, needs to play an active role in initiatives to improve the oral health of children.

5. What impact do you think the project has had to date? Who can be contacted a few years from now to follow up on the project?

This project has gained national, state and local recognition because it has developed a potential model for improving children’s oral health. The SCDHEC Division of Oral Health Director can be contacted in the future.

MSF Oral Health Integrated Systems Model



6. What are the post-grant plans for the project if it does not conclude with the grant?

South Carolina is a recipient of several grants for early childhood integrated systems. The Oral Health Integrated Systems Model demonstrates integration of oral health into an existing service delivery system. The DOH has received \$7,000 toward the development of physician office oral health educational materials from the ECIS Grant.

7. With a perspective on the entire project, what have been its key publications and national/regional communication activities? Did the project meet its communication goals?

See Bibliography