



Michigan Department of
Community Health
Oral Health Program



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Maternal Infant
Health Program

***Maternal Infant Health
Oral Health Fluoride Varnish
Pilot Program 2011-12
Project Report***

Introduction:

Tooth decay is the most common chronic disease of childhood. Early Childhood Caries (ECC) is defined by the American Academy of Pediatric Dentistry (AAPD) as “dental decay on any one surface of a tooth in a child less than 71 months of age; this includes cavitated as well as uncavitated white spot lesions.” The pain, suffering and costs of treating primary teeth for dental decay are preventable. By performing a caries risk assessment, Providing anticipatory guidance, and applying fluoride varnish as soon as the primary teeth erupt, the Early Childhood Caries process can be reduced. The American Academy of Pediatrics (AAP) and the AAPD both recommend a child’s first visit to the dentist occur soon after the first tooth erupts or within 12 months of age.



The Michigan Department of Community Health (MDCH) Maternal Infant Health Program (MIHP) provides services to high risk pregnant mothers and babies in their first year of life. It makes good sense to include an oral health risk assessment and preventive fluoride varnish applications on the newly erupted teeth of the infants participating in these programs.

The Michigan Medicaid Program currently does not reimburse nurses or the MIHP for oral health services. However, the Michigan Medicaid Program does reimburse physicians and nurse practitioners for applying fluoride varnish on children under 3 years old. As a pilot project to encourage Michigan Medicaid reimbursement for fluoride varnish for this program, the objective is to show that the programs could, and would, initiate early oral health interventions and prevent dental decay in their clients. Helping providers encourage families to find a dental home would increase the number of children who have a dental visit by age one and reduce ECC rates in Michigan.

The timeframe for this project was January 1, 2012 through September 30, 2012. Trainings to all the nursing staff in the MIHP programs was held prior to this timeframe so that actual screenings and fluoride varnish applications could commence early in January.

The Delta Dental Foundation had generously allocated \$25,000 to the MDCH Oral Health Program to collaborate with the MIHP service providers to include oral health services with their regular services to their populations. Training for the MIHP service providers, educational materials for the parents, toothbrushes, free fluoride varnish and reimbursement of \$9 for each varnish application was made available to 5 chosen pilot programs interested in helping us initiate this program. Allegan County Health Department, Champion Nursing Care, Connect Health Services, District Health Department #10, and Marquette County Health Department were the chosen MIHP programs to participate.



Guidance to the mothers on how to care for a high caries risk child is crucial to the intervention of the early childhood caries process. By utilizing MIHP professionals, oral health education can be provided, guidance on oral health prevention can be introduced into home visits and help connecting families to dental providers for early preventive, routine care can be initiated.



Specifics of Program:

Invitations for participation went initially to local public health departments, Federally Qualified Health Centers, Home Health Providers, and Indian Health Center Providers, with an emphasis to include rural, urban, and special populations.

The goal was to have very early assessments of the decay risk for the babies seen, look in the infant's mouth, apply early preventive measures (fluoride varnish) if indicated, educate the mothers on early oral health care and refer the families to a dentist.

Licensed registered nurses were the service providers who provided the oral screenings and applied the fluoride varnish. Each program required a standing order (directive) from a supervising physician.

In exchange for training in infant oral health, free fluoride varnish, toothbrushes, and \$9.00 reimbursement for fluoride varnish application, each MIHP program collected oral health data for MDCH. The reimbursements for the fluoride varnish applications were based on the number of screening forms submitted to MDCH at quarterly intervals. The reimbursements were made in accordance with agency contracts with MDCH.

Training:

Each provider that participated had to have the Infant Oral Health Training through the MDCH Oral Health Program. Four of the agencies and their providers were visited by Susan Deming, RDH, RDA, Education/Fluoridation Coordinator with the Oral Health Program, and presented the training in November/December 2011. Rebecca Maino, RDH, dental hygienist at the Marquette County Health Department, presented the training to the Marquette group in January 2012. A total of 42 nurse providers were trained. The training included the same online training the Michigan physicians and nurse practitioners take for Medicaid Certification in order to bill for fluoride varnish applications plus additional education on infant oral health home care and how to fill out the screening forms.



Ingrid Davis and Susan Deming using doll for screening demonstration.

Topics included:

- Oral Health Facts
- Pregnancy and Oral Health
- Eruption and Types of Teeth
- Childhood Dental Disease/ Early Childhood Caries
- Caries Risk Assessment
- Anticipatory Guidance for Parents of Young Children
- The Dental Home
- Performing an Oral Health Screening
- Fluoride Varnish Application

Some feedback from the trainings included:

- ◆ “Very interesting and should be a great addition to MIHP”
- ◆ “Thank You! This will be a very valuable and useful tool”
- ◆ “Great job!”
- ◆ Everyone agreed that the presentation met objectives, the presenters were knowledgeable, and responded to questions adequately

On the training days each program received free fluoride varnish based on estimates of children to be seen, free toothbrushes, (one adult per family and one per child), fluoride varnish brochures and handouts for educating mothers.

Collecting Screening Data:

Each child provided an oral screening and fluoride varnish had a MDCH screening form filled out that provided information on:

- ◆ Name, birthdate, M/F, ethnicity
- ◆ Date, agency name, examiner initials
- ◆ Medicaid #
- ◆ Consent from parent
- ◆ Number of teeth present
- ◆ Previous treatment-how many teeth had fillings, crowns or had extractions due to decay
- ◆ Untreated decay-how many teeth currently needed treatment
- ◆ White spot lesions- Y/N, if any teeth had white spot lesions (earliest sign of decay)
- ◆ ECC-Y/N, if any of the above were noticed
- ◆ Treatment urgency-0,1,2- based on screener recommendation
- ◆ Fluoride varnish applied-Y/N
- ◆ Caries Risk Assessment- Y/N
- ◆ Child referred for treatment-Y/N
- ◆ Referred to:

These forms were sent into Susan Deming, MDCH Oral Health, on a quarterly basis. Data was entered on a main spreadsheet per agency.



Data Results :

- ◆ 495 children seen
- ◆ 254 were male, 240-female, 1-no response
- ◆ Majority were white (60%), Black (18%), Hispanic (12%), BI/Wh (4%), Asian (1%), Nat American (1%), Other (2%), No response (1%)
- ◆ All 495 children received at least one oral health screening
- ◆ 99 children received a 2nd screening
- ◆ 10 children received a third screening
- ◆ 1 child had 4 screenings
- ◆ All 495 received at least one fluoride varnish application
- ◆ 99 children received a second application
- ◆ 9 children had three applications
- ◆ 1 child had 4 applications
- ◆ 604 total varnish applications
- ◆ 4 children, all from Marquette area, had had previous dental treatment, with a total of 25 teeth involved
- ◆ 9 children had untreated dental needs involving 25 teeth
- ◆ 12 children had at least one tooth with white spot lesions (earliest sign of decay)
- ◆ 17 children total had evidence of Early Childhood Caries by the second or third screening
- ◆ All parents of the children received a caries risk assessment and education at least once during the project

Discussion of Results:

It was originally estimated that approximately 900 children would be seen for the oral health screenings and fluoride varnish applications based on estimates provided by the participating agencies. It was also estimated that approximately 1800 varnish applications would be provided based on at least two applications per child. The results show the numbers were less than anticipated but with positive outcomes none the less.

Because these children were mostly less than one year old, the original expectation was that there would not be much screening data to review. It was startling to see any children with signs of decay at this early stage. This data demonstrates that it is necessary to start oral health efforts as early as possible, at least by age one.



Budget:

Delta Dental generously provided \$25,000 for this project. Below is the breakdown of the funds:

Agency	Allocations for Varnish Reimbursement/Supplies:	Amount Spent:	Lapsed Amount:	Total varnishes:
Allegan County Health Department	\$900	\$900	0	35
Champion Nursing Care	\$3600	\$468	\$3132	52
Connect Health Services	\$1800	\$1800	0	236
District Health Department #10	\$3600	\$2862	\$738	233
Marquette County Health Department	\$1080	\$441	\$639	48
Supplies:		Amount Spent:		
Toothbrushes		\$752.18		
Brochures/Varnish Screener Cards		\$785.76		
Varnish America fluoride varnish applications		\$8269.52		
Oral Health Baby Wheels from Capitol Area Community Services		\$952.50		
Funds directed to Fluoridation Equipment Grant		\$2663		
Totals:	\$10,980 allocated to programs	\$19,893.96 spent on programs and supplies	\$5106.04 Lapsed Funds- To be rolled into next year	604 varnish applications

Evaluation: Mid Project

Even though there was some disappointment in the numbers of children seen and number of varnish applications provided, this was a great introduction into oral health for the participating MIHP programs. In order to assess how the providers were doing, an interim survey was sent out in June 2012 asking for their feedback as to how the program was progressing. Four agencies responded back.

The number of screenings and varnish applications thus far was noted along with how many had been referred to a dental home. Original estimates were adjusted at this time if indicated.

The providers were asked if they felt this program increased oral health awareness to their mothers. The responses:

- * Absolutely!
- * Yes. For sure. Many of them (mothers) are not aware that their baby can receive fluoride varnish before 2 years old.
- * Very, very much so!
- * Well received by families.

They were asked if they had time during the visit to discuss oral health or show oral health home care. The responses:

- * Yes.
- * Yes, we build it in as part of the MIHP visit for all babies.
- * Yes.
- * Oral health has been easy to incorporate into our visits-we usually add this information during nutritional counseling.

It was asked if MDCH Oral Health was available and responsive to their questions and needs.

The responses:

- * Yes.
- * Yes, Susan Deming has been wonderful in supporting the Fluoride Varnish Program and providing us with all needed materials...
- * No Response

The question was asked if referring to a dentist was working for your program. This seemed to be more of a challenge for programs. The responses:

- * Okay. Moms are reluctant to call and schedule an appointment.
- * For Calhoun County, Family Health Center has already been promoting oral care for baby and applying fluoride varnish to their patient during well child check. The oral care education we provided through MIHP has become a re-educational session. For other pediatric office patients within the county fluoride varnish application is new to them, but they are receptive and willing to enroll their baby to Family Health Center dental office (the only dental office to accept Medicaid within Calhoun County).
- * For St. Joseph County, there is little oral care promotion through pediatric offices. MIHP participants find it very helpful, but also skeptical, about fluoride varnish application. Mothers found it very challenging to find a dentist to accept Medicaid.
- * This was assumed (that the mothers took their child to the dentist).
- * All were referred but no follow up.

Additional comments. The responses:

- * Since Family Health Center in Calhoun County is applying fluoride varnish during well child check-ups, the majority of our babies have already received the treatment.
- * I know all of our nurses are discussing the importance of having a dental home...
- * This has been an excellent pilot project. So very well received by clients most staff. Some communities seem more reluctant to let the nurse apply... They state the water has fluoride in it so they are not interested. (Even though we educate them!) I so hope we can do this through the MIHP program!

Evaluation: Final

A final survey to providers was developed with the help of MDCH oral health program staff and MDCH-MIHP staff. This was disseminated via Survey Monkey October 15, 2012 to all program contacts and asked to be completed by November 1. There were 4 MIHP program Coordinators and one nurse provider that filled out the survey. It would have been more helpful to us to have more of the providers answer some questions.

They first were asked how many oral screenings and fluoride varnish applications were provided and how many babies referred to dental homes. It was asked if they used all their allocated funds or had funds left over. Some adjustments from the original requirements were made and did allow some agencies with leftover funds to purchase supplies such as toothbrushes for their families.

It was again asked if they felt that by providing the screenings, fluoride varnish applications and education it increased the oral health awareness of the mothers. All respondents said yes. One comment was, "Many of our patients live outside the city and have no access to fluoride. The families really appreciated the fluoride varnish program."

It was asked about barriers in referring for the age one dental visit. The responses:

- * None
- * We referred, but dentists aren't willing to see a one year old.
- * Lack of dentist within community that will treat babies at age one. Transportation problem. Family physician told parents that their baby doesn't need dental care until 3 years old. Parents do not think it is important to take care of baby teeth, as they will fall out anyway.
- * The distance to local providers. Travel costs for our clients.
- * Lack of Medicaid enrolled providers.

Did they know how many of their mothers actually took their babies for their first dental visit? The responses:

- * About 10-20 took their babies for an age one dental visit that I am aware of.
- * Unknown.
- * Majority of them made the appointments. We also had many parents immediately taking their older kids to dental office for first visit.
- * 4
- * 10



What factors helped enhance referrals for a dental visit?

The Responses:

- * Educating the mothers helped enhance referrals.
- * The program raised the overall awareness of dental health as being a priority for families.
- * Not sure.
- * Medicaid coverage.
- * Personal recommendations.

How much time was spent during a visit to discuss oral health and teach home care? (Four range choices). The responses:

- * Zero programs said 1-5 minutes
- * One program said 6-10 minutes
- * 3 programs said 10-15 minutes
- * One program said longer than 15 minutes

Evaluation was needed on how helpful the MDCH Oral Health Program was to these providers so three questions were asked on this topic. The first question asked for a range of helpfulness: Very helpful, Somewhat helpful, and Not very helpful. The responses:

- * All 5 said very helpful.
- * One comment: Susan is wonderful to work with and she is very good at answering questions.

Describe what kind of help was helpful. The responses:

- * MDCH helped us find dentist that would see infants.
- * Training was very helpful and always provided good support as project continued.
- * Increase awareness of dental health for babies under 1 year old. Educated parents about proper dental care.
- * Susan always took the time to answer my questions any time I needed.

Was there any help that may have been given but was lacking? The responses:

- * None, they were very helpful.
- * Need more regular training sessions for new nursing staff (our new nurses can't perform fluoride varnish applications as they were not trained.) Prefer giving out baby toothbrush—the one that slides on the finger. Need more community promotions, especially to Dr. Offices.
- * It would have been nice for MDCH to allow Social Workers who passed the testing to apply varnish and to clarify when the funds needed to be used by earlier in the process.

Would you like to see oral health education and assessment included as a component of MIHP in the future? The responses:

- * All 5 said yes.

Other comments:

- * A dental component would be helpful in the MIHP, because many of my moms stated they wish the program was available for their older children, because they suffered with dental caries before the age of one. Our moms enjoyed the program and looked forward to the next visit.
- * It was a wonderful program—so sad we don't have more fluoride to continue to varnish the babies' teeth. Most parents were very receptive to the idea, and it is great to get the teeth when they are new! Please consider making this a part of the MIHP Program!
- * Thank you for the opportunity. Please consider continuing to provide this service to MIHP clients. They could really benefit from this service.

Discussion on Evaluation: This was a pilot program designed to get a rough idea if a fluoride varnish program through the MIHP should be considered as a Michigan Medicaid Program reimbursement option. There was hope for continued funding and expanding the program in 2012-13 but no funds became available. The responses from the coordinators and providers allowed a small window into the possibility of utilizing the MIHP programs for early oral health education and connections to dental homes. From the above responses, all of the programs saw this as a valuable benefit to their clients, to their programs and wanted this to continue. This report and the participant comments will be used to present a proposal to the Michigan Medicaid Program to consider reimbursement for varnish applications through the MIHP programs.

Lessons learned:

- Need to continually look for other funding sources much earlier in the process
- Need for continued interaction with agencies and continued training for new staff
- Nurses in MIHP programs are great avenues for oral health promotion at the earliest of age
- Referring to a dentist by age one is a challenge, especially for those on Medicaid
- Transportation to dental offices is a concern for new mothers
- Need to include other family member needs when directing for oral care services

I would like to thank all the people involved in this project, from Delta Dental Foundation for the generous funding, for Christine Farrell, Oral Health Program Director at MDCH for her support and guidance in this project, for Joni Detwiler and Ingrid Davis from the MDCH-MIHP program for their contacts, guidance and expertise with the programs, to the participating agencies, whose patience and willingness to learn all they could on oral health for infants helped many families on a life path to great oral health!

Respectfully,



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