Project Identification

Project Title: Provide Dental Sealants to Low-Income Children in School-based Program

Project Number: H45MC00010

Project Director: Hayley L. Harvey, DDS, MS

Grantee Organization: Iowa Department of Public Health

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Project Period: 8/1/1999-7/31/2002

Total Amount of Grant Awarded: $145,000

PROJECT ABSTRACT

PURPOSE OF PROJECT AND RELATIONSHIP TO SSA TITLE V MATERNAL AND CHILD HEALTH PROGRAMS: The purpose of this grant program was provision of dental sealants for low-income children in Iowa. The Iowa Department of Public Health (IDPH) subcontracted with two Title V Maternal and Child Health (MCH) contractors, Black Hawk County Health Department (BH) and Upper Des Moines Opportunities, Inc. (UDMO) for implementation of this program. The choice of using Title V MCH contractors was based on the ability to easily incorporate the school-based sealant program objectives into the Title V MCH program objectives.

GOALS AND OBJECTIVES: The goals and objectives of the project included: 1) Implementation of a school-based dental sealant program for children in the second and third grades according to the established criteria. 2) Referral of children identified in need of further dental treatment. 3) Provision of information, education, and materials to encourage parents to enroll their children in Title XIX or hawk-i programs for which they are eligible. 4) Continuation of the sealant program for a minimum of three years, including annual retention checks of previous sealant applications; follow-up referrals for children who have not had their dental treatment needs completed; and assistance with applications for Title XIX or hawk-i programs. 5) Exploration and discussion with local and county funding resources to maintain a long-term school based program for children in this high-risk population. Most of these program goals and objectives parallel those of IDPH's Title V MCH contractors.

METHODOLOGY: The initial project site was in Black Hawk County in the city of Waterloo, a primarily blue-collar urban area with a large population of Medicaid-enrolled

children. The final two years of the project also included five rural counties in northwest Iowa, with a high population of uninsured and underinsured children. This service area also included one county that has seen a 1,500 percent increase in Hispanic immigrants since the 1990 census. The first year of the grant, the BH program served children in 2nd and 3rd grades. The final 2 years, the BH program continued to serve 2nd and 3rd graders in 13 elementary schools, as well as children in 6th, 7th, and 8th grades in 3 middle schools. During the second year of the grant period, UDMO served 2nd and 3rd graders in 8 elementary schools. The final year of the grant period, the UDMO program also began targeting 7th and 8th graders in 4 middle schools in addition to 2nd and 3rd graders at 10 elementary schools. Participating schools ranged from 35-88 percent participation in the free/reduced lunch program. English and Spanish consent forms, sealant brochures, and information about the Title V MCH contractor were distributed to all students in the targeted grades of participating schools. Both programs used contracted and volunteer dentists to examine the children. Each program utilized a dental hygienist to apply sealants and serve as project coordinator. Dental assistants were also contracted. Referrals to dentists were made for students with additional treatment needs and families that indicated a need for assistance in finding a dental home for their child. Random sample short-term retention checks were provided the final day of sealant clinics at each school. Retention checks were also provided a year later. Increased travel in the rural project resulted in higher costs per child to run the program.

EVALUATION: A new data recording system was developed by IDPH the final year of the project for use by all of the state's school-based sealant projects. Additionally, both BH and UDMO programs reported improved local dental infrastructure as a result of the

grant funding, measured by increases in the number of dental providers accepting referrals, additional planning and funding for oral health services at the community level, and increased participation by dentists in local public health activities.

RESULTS/OUTCOMES: The total number of children receiving sealants in the BH project was 2,478. An average of 6.5 sealants was placed per child, for a total of 16,235 sealants. The UDMO project placed 3,464 sealants for an average of 4.8 sealants per child, with a total of 728 students receiving at least one sealant. Only 11 percent of all participating children had at least one existing sealant upon intial examination. Use of the IDPH data recording system captured the number of children with dental insurance coverage in the final year of the program. In the BH project, 43 percent of children had Medicaid insurance, just 13 percent had private dental insurance, and 2 percent had hawk-i coverage. In the Upper Des Moines project, just 16 percent of the children had Medicaid insurance, 36 percent were uninsured, and 4 percent had hawk-i coverage. In the final year, 23 percent of students in the BH program were Black, and 91 percent of those students received at least one sealant, and 5 percent of participating students were Hispanic, with 93 percent receiving at least one sealant. Also in the final year, 10 percent of participating students in the UDMO program were Hispanic, and 93 percent of those students received at least one sealant. Not only were 2nd and 3rd graders targeted, but the final two years of the grant, 6th, 7th, and 8th graders were also included. Systems were in place for care coordination, contacting parents about the program, informing parents about payment sources for dental care, and assistance in applying for those sources. Local attention and interest in the programs helped to improve oral health planning at the community level, including development of an oral health task force in the BH area with

a focus of improving access to dental care. Participation by dentists in the UDMO project increased over 100 percent from year one to year two.

PUBLICATIONS/PRODUCTS: Consent forms, brochures, and letters for parents that were developed for the program, as well as the protocol for the School-Based Sealant Data Recording System, are all included in the Appendix of this report.

DISSEMINATION/UTILIZATION OF RESULTS: Program results are available via the IDPH website (www.idph.state.ia.us/fch/dh.htm) and have been used within several in-state presentations, one national presentation, and even an international presentation. Potential for capturing longitudinal data through the School-Based Sealant Program Data Recording System is being reviewed.

FUTURE PLANS/FOLLOWUP: Both programs will continue for the 2002-2003 school year using local funds, Medicaid reimbursement, and funding through IDPH.

TYPE/AMOUNT OF SUPPORT AND RESOURCES NEEDED TO REPLICATE: Program data easily demonstrates the need for preventive programs such as the school-based sealant program. Costs to run the programs are often the deterrent for interested communities. Due to the large number of uninsured and underinsured children in Iowa, programs cannot rely solely on Medicaid reimbursements to offset program costs. Duplication of costs for an urban program in Iowa could run approximately $50,000 a year, with approximately $28,000 of the costs offset by Medicaid reimbursement. Projected costs for a similar sized rural Iowa region would rely on funding from $33,000 to $34,000 a year.

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Narrative

Purpose of Project and Relationship to SSA Title V MCH Programs:

The purpose of this grant program was provision of dental sealants for low-income children in Iowa. The school-based sealant program was successful in not only its primary purpose but was also integral in improving access to oral health care for low-income families and increasing community awareness of the oral health needs of children.

The Iowa Department of Public Health (IDPH) subcontracted with two Title V Maternal and Child Health (MCH) contractors, Black Hawk County Health Department (BH) and Upper Des Moines Opportunities, Inc. (UDMO) for implementation of this program. The choice of using Title V MCH contractors was based on the ability to easily incorporate the school-based sealant program objectives into the Title V MCH program objectives.

Title V MCH contractors act as family advocates as they assist families in their regions in accessing needed health and social services. Title V contractors provide care coordination which includes finding payment sources for families needing health care, enrollment of families into the Medicaid and Iowa SCHIP (hawk-i) insurance programs, assistance in scheduling appointments, provision of transportation and translation services for appointments, and reminders for upcoming appointments. Families with children participating in the school-based sealant programs are linked with a Title V MCH agency and provided the opportunity to use all of these agency services.

This incorporation of school-based sealant programs into existing Title V MCH programs has the potential to strengthen the Title V MCH programs in several ways:

increasing partnerships with the dental community; improving access to oral health services for children enrolled in the Title V program; increasing the number of dental providers accepting referrals from a Title V MCH contractor; educating community, families, and Title V MCH staff about oral health; and improving the Title V MCH contractors' outreach to families in their service regions.

Approximately 7 percent of Iowa's Title V block grant is used for the Bureau of Oral Health and oral health programs. If funding to implement school-based sealant programs were added to that appropriation, the overall cost benefit for the health of Iowa's children would most likely surpass the actual increased dollar amount.

Goals and Objectives:

The goals and objectives of the project included: 1) Implementation of a school-based dental sealant program for children in the second and third grades according to the established criteria. 2) Referral of children identified in need of further dental treatment. 3) Provision of information, education, and materials to encourage parents to enroll their children in Title XIX or hawk-i programs for which they are eligible. 4) Continuation of the sealant program for a minimum of three years, including annual retention checks of previous sealant applications; follow-up referrals for children who have not had their dental treatment needs completed; and assistance with applications for Title XIX or hawk-i programs. 5) Exploration and discussion with local and county funding resources to maintain a long-term school based program for children in this high-risk population.

Most of these program goals and objectives parallel those of IDPH's Title V MCH contractors. In addition to expanding the community dental infrastructure and

increasing the number of families receiving enabling services, this sealant program was able to provide population-based preventive dental services.

Methodology:

The initial project site was in Black Hawk County in the city of Waterloo, a primarily blue-collar urban area with a large population of Medicaid-enrolled children. The final two years of the project also included five rural counties in northwest Iowa, with a high population of uninsured and underinsured children. This service area also included one county that has seen a 1,500 percent increase in Hispanic immigrants since the 1990 census.

The first year of the grant, the BH program served children in 2nd and 3rd grades. The final 2 years, the BH program continued to serve 2nd and 3rd graders in 13 elementary schools, as well as children in 6th, 7th, and 8th grades in 3 middle schools.

Schools in the BH program had a 38 percent or higher participation rate in the free/reduced lunch program. This allowed the inclusion of an elementary school with a high minority and refugee population. Ten of the thirteen elementary schools were at 57-88 percent participation rate in the free/reduced lunch program and the middle schools were all between 57-78 percent participation.

During the second year of the grant period, UDMO served 2nd and 3rd graders in 8 elementary schools. The final year of the grant period, the UDMO program also began targeting 7th and 8th graders in 4 middle schools in addition to 2nd and 3rd graders at 10 elementary schools.

The schools qualifying for the UDMO program all had at least 35 percent participation in the free/reduced lunch program. Three-fourths of these schools had 40 percent and greater participation in the lunch program.

Written materials were developed in English and Spanish in an effort to improve outreach to immigrant populations. These materials included brochures, consent forms, and informational letters to parents.

Consent forms, sealant brochures, and information about the Title V MCH contractor were distributed to all students in the targeted grades of participating schools. In an attempt to improve consent form returns, the programs implemented incentives such as pencil toppers or stickers for each child that returned a consent form. For middle school grades, pizza parties were awarded to the classes that were able to return the most consent forms.

Both programs used contracted and volunteer dentists to examine the children. Examination clinics were conducted prior to and on different days than the sealant clinics. Each program utilized a dental hygienist to apply sealants and serve as project coordinator. Dental assistants were contracted and assisted with dental exams, sealant application, supply inventory, and paperwork.

The role of the project coordinator was vital for both projects. The coordinators were responsible for outreach to community and schools, scheduling of school clinics and dentists, provision of education to students, answering parent questions, paperwork, data entry, care coordination and communication with the EPSDT / Title V care coordinator, in addition to application of the sealants.

Referrals to dentists were made for students with additional treatment needs and families that indicated a need for assistance in finding a dental home for their child. Families also received assistance in applying for Medicaid or hawk-i insurance if needed.

Retention checks were completed by the dental hygienist on a random sample of students on the final day of sealant clinics at each school. They were also completed on all participating students a year later. These retention checks also provided an opportunity to identify children still in need of restorative treatment, allowing them to be referred back to the care coordinator.

The BH program was fortunate to have a local dental supplier loan an intraoral camera to the program for a week during its final contract year. The use of this camera proved invaluable as the dental hygienist/project coordinator was able to document the severe dental disease status of several participating children. The intraoral photographs have been used by the project coordinator to educate and alert area health care providers to the extensive treatment needs and access to care disparities of the children in their area.

The costs of the program differed between the urban and rural projects. The average cost per participating child in the BH program was approximately $54, while the average cost per participating child for the UDMO program was approximately $84.

Although both projects were successful in recruiting some volunteer dentists, they also contracted with some dentists, adding to overall personnel costs. The BH project saw more children and averaged 6.3 sealants per student in the final year, compared to UDMO's average of 4.8 sealants per student. However, the larger service area of the UDMO project resulted in increased travel costs compared to the urban BH project. This

appears to be the primary reason the UDMO costs were higher. Due to the largely rural status of Iowa, this will be an important factor in planning future projects.

Evaluation:

Due to the increased number of school-based sealant programs in the state and the potential amount of data that could be captured, a new data recording system was developed by IDPH for use by all of the state's school-based sealant projects. The data recording system was incorporated for school year 2001-2002, the final year of this project. The new system allowed for standardization and consistency of data collected. Program data was sent electronically each month to IDPH and analyzed by the Bureau of Oral Health's epidemiologist/biostatistician. Specific information captured included not only number of sealants placed but also dental insurance coverage, frequency of dental visits, and untreated decay rates. This data has allowed for improved assessment of the oral health status of Iowa children and oral health program needs.

Both programs provided examinations to check the retention of applied sealants in two ways. First, students were randomly chosen for short-term retention checks at each school on the last day of the school's sealant clinic schedule. Then one year later, all students who received sealants were re-examined, unless the student was absent on the examination clinic day. This examination was used to not only determine retention, but to also determine those students that needed further care coordination efforts to assist the student in completing dental treatment that had been identified as a need at the initial examination.

An additional evaluation of the effectiveness of the school-based sealant projects involves measurement of the community reaction and response to the program.

Measuring the BH and UDMO service regions' dental infrastructure is difficult, but both programs report that their local infrastructure has been improved as a result of this grant funding. Examples of this include increases in number of dental providers accepting referrals, planning for oral health services at the community level, increased participation by dental providers in local public health activities, and additional funds being directed toward oral health programs at the local level.

Results/Outcomes:

The following tables provide a summary of program data.

BLACK HAWK COUNTY HEALTH DEPT.	1999-2000	2000-2001	2001-2002
No. of children examined	663	999	1,121
No. of children receiving sealants	575	889	1,014
Total sealants placed	2,128	7,035	7,072
% of children with untreated decay	33%	21%	26%
% of children with at least one existing sealant	12%	13%	7%
Participating schools	13 elementary	13 elementary, 3 middle	13 elementary, 3 middle

UPPER DES MOINES OPPORTUNITIES	1999-2000	2000-2001	2001-2002
No. of children examined	NA	310	540
No. of children receiving sealants	NA	276	452
Total sealants placed	NA	878	2,586
% of children with untreated decay	NA	34%	39%
% of children with at least one existing sealant	NA	16%	11%
Participating schools	NA	8 elementary	17 elementary, 8 middle

Both programs were successful in increasing participation each year of funding. More community awareness of the program and program familiarity by school administrators can be attributed for the improved participation. The total number of children receiving sealants in the BH project was 2,478. An average of 6.5 sealants was placed per child, for a total of 16,235 sealants. The UDMO project placed 3,464 sealants for an average of 4.8 sealants per child, with a total of 728 students receiving at least one sealant. Very few children had existing sealants upon initial examination in either program.

Use of the IDPH data recording system captured the number of children with dental insurance coverage in the final year of the program. In the BH project, 43 percent of children had Medicaid insurance, just 13 percent had private dental insurance, and 2 percent had hawk-i coverage. In the Upper Des Moines project, just 16 percent of the

children had Medicaid insurance, 36 percent were uninsured, and 4 percent had hawk-i coverage. (See Appendix A.)

The project goals were all met or surpassed in the 3-year grant period. Not only were 2nd and 3rd graders targeted, but the final 2 years of the grant, 6th, 7th, and 8th graders were also included. Both programs had protocol in place for referring children that were identified as having further treatment needs. Systems were developed that included how to contact parents about the program and the results of examinations and how to use the EPSDT / Title V care coordinators for care coordination services. Families received information about Title V, Medicaid, and hawk-i dental insurance, and assistance was provided to those that needed it in applying for those programs. Retention checks were carried out annually, in addition to short-term random checks on the last sealant clinic day at each school. The retention checks also served to identify children with treatment needs that had not yet accessed dental care, and getting those children back into the care coordination system.

Both contractors were successful in creating local attention and interest in their programs and explored future funding options. The BH program was particularly successful with the development of the Cedar Valley Oral Health Initiative in the spring of 2001. The group continues to meet monthly, working on a strategic plan to improve access to dental care in the BH county area. Data from the school-based sealant program has been crucial in the group's search for grant funds. Two oral health grants have been funded in the BH area—one which will provide oral health education and sealants to children of the Mesquaki tribe and another to fund construction of a new dental clinic in downtown Waterloo as part of the Federally Qualified Health Center.

The UDMO project has been successful in improving the Title V agency's partnership with the dentists within its 7-county region. Participation by dentists in the school-based sealant program has increased over 100 percent, going from 8 participating in the first year to 17 in the second year. The participating providers have gained a greater understanding of public health programs and dental needs of children in their communities. As a result, dental providers are now volunteering their services to the school-based sealant program and have been more willing to accept referrals of low-income families into their practices through the UDMO care coordinator.

UDMO has also seen an increase in completion of treatment recommended through the exams provided through the sealant program. Following the first year, about 30 percent of children had completed recommended treatment. Following the second year, that number improved to nearly 50 percent. The UDMO care coordinator feels this improvement is due to the increased awareness by parents of the importance of their children's oral health. This awareness has also resulted in parents willingness to apply for Medicaid and hawk-i. Most applicants have been eligible for Medicaid.

At this time, IDPH has been unable to capture Medicaid and hawk-i enrollment data related to the school-based sealant program.

The new data recording system the final year of the contract period allowed for identification of minority populations that the sealant programs served. Twenty-three percent of participating students in the BH program were Black, and 91 percent of those students received at least one sealant. In the same program, 5 percent of participating students were Hispanic, with 93 percent of those students receiving at least one sealant.

Ten percent of participating students in the UDMO program were Hispanic, and 93 percent of those students received at least one sealant.

IMPACT SUMMARY:

- Reduction in racial and income disparity in sealant prevalence
- Significant oral health statistics and photo documentation of severe dental disease status of school-aged children
- Increased community awareness of preventive dental care and need for program funding
- Establishment of effective relationships with schools
- Establishment of effective relationships with local dental providers
- Development of local oral health task force
- Collaboration with regional community health center
- Increase in access to dental treatment services

Several lessons were learned in the three-year project period.

1. Employment of a project coordinator with excellent clinical and public relations skills is directly related to program success;
2. School-based sealant programs create significant growth in local dental infrastructure;
3. Oral health program costs for rural Iowa will likely be higher than program costs in urban locations;
4. The number of underinsured children in Iowa creates a unique situation regarding need for preventive services and funding difficulties; and

5. Contracting of school-based sealant programs to Title V MCH contractors creates systems that strengthen not only the sealant grant program, but also the Title V MCH grant program regarding all health and social service programs provided by the contractor.

Publications/Products:

Each program developed consent forms, brochures, and letters for parents, included in the Appendix. Also included in the Appendix is the protocol for the School-Based Sealant Program Data Recording System, developed in the last year of the project for data collection for all of the state sealant projects. All of these are available on loan from the National Center for Education in Maternal and Child Health's *MCH Program Interchange*, at 703-524-7802. The School-Based Sealant Program Data Recording System protocol is available electronically through IDPH. Contact the Bureau of Oral Health secretary at 515-281-3733.

Dissemination/Utilization of Results:

Program data and information has been shared many ways. The Bureau of Oral Health includes summary information from the FY01 and FY02 school-based sealant programs on the IDPH website, allowing the data to be available for use by the public. Joan Gilpin, the BH project coordinator has presented information on the program to the Iowa Dental Hygienists' Association, Hawkeye Community College's dental hygiene program, the Iowa Dental Summit, and the International Federation of Dental Hygiene. Tracy Rodgers, IDPH dental consultant, used BH program data for a presentation at the 2001 National Oral Health Conference, sponsored by the Association of Public Health

Dentistry and the Association of State and Territorial Dental Directors. Both the BH and UDMO projects have had regional media coverage.

The School-Based Sealant Program Data Recording System continues to be reviewed and expanded to capture additional, longitudinal data that will allow for further sharing of program information in the future.

Future Plans/Follow Up:

Short-term impact of the projects is the number of children benefiting from receiving preventive dental sealants. Long-term impact of the projects includes the community awareness and involvement in children's oral health, decay prevention for at-risk populations, and the ability to engage private-practicing dental providers in a public health setting. The school-based sealant programs have also served as an impetus for the involved Title V MCH contractors to strengthen the oral health component of their services.

Both programs will continue for the 2002-2003 school year using local funds, Medicaid reimbursement, and funding through IDPH. The HRSA-funded projects have become the model and ideal for other Iowa sealant programs to duplicate. The communities, agency directors, agency staff, schools, parents, and dental providers in the BH and UDMO service areas have voiced the need for the programs to continue. The Iowa Department of Public Health foresees both programs lasting several years and continues exploring for funding opportunities to implement similar school-based sealant programs in other areas of the state.

Type/Amount of Support and Resources Needed to Replicate

Data collected from the two Iowa projects easily demonstrates the need for preventive programs such as the school-based dental sealant program. Costs to run these programs are often the deterrent for communities interested in starting their own project. Due to the large number of uninsured and underinsured children in Iowa, programs cannot rely solely on Medicaid reimbursements to offset all program costs. The expense of initial equipment purchase and salary costs for a dental hygienist as project coordinator are often the greatest hurdles. Larger, metropolitan areas are sometimes able to find local large businesses or health foundations that are willing to assist with costs, but for rural areas of the state, these resources are mostly unavailable.

This program began as a one-county urban project and was easily adapted to a multi-county rural area. As a primarily rural state with only 10 Metropolitan Statistical Areas, the success of this rural program and ease of adaptability will prove valuable for future program planning.

This grant showed that rural and urban projects seem well suited to include both elementary and middle school children, rather than strictly focusing efforts on children in elementary schools.

Based on estimates using data from the BH program, projected costs of a similar urban program could run to approximately $50,000 a year, with approximately $28,000 of the costs offset by Medicaid reimbursement.

Duplication of projects in similar sized rural Iowa regions would rely on funding from $33,000 to $34,000 a year. Funding would be dependent on the number of counties and population of a service area. Unfortunately, sustainability of rural programs is

questionable due to the large number of uninsured and underinsured that do not qualify for Title V, Medicaid, or hawk-i insurance and the lack of outside funders such as large businesses or health foundations.

The rural program, similar to others IDPH has funded, is more likely to attract volunteer dentists to provide examinations, leaving personnel costs strictly for a dental hygienist / project coordinator and an assistant. Using Title V agencies as contractors for a school-based sealant program allows for in-kind staffing support for fiscal and care coordination services.

APPENDIX

IDPH School-Based Sealant Program: School Year 2001-2002

	Black Hawk		Upper Des Moines	
Total children examined	1,121		540	
Total receiving sealants	1,014	90%	452	84%
Medicaid-enrolled receiving sealants	431	90%	67	80%
Total sealants placed	7,072	AVG 7.0	2,586	AVG 5.7
Total sealants for Medicaid-enrolled	3,366	AVG 7.8	344	AVG 5.1
Children with history of decay	635	57%	315	58%
Medicaid-enrolled with history of decay	272	57%	50	60%
Children with untreated decay	291	26%	208	39%
Medicaid-enrolled with untreated decay	118	25%	36	43%
Children with private dental insurance	148	13%	184	34%
Children with no dental insurance	200	18%	195	36%
Children with hawk-i dental insurance	24	2%	24	4%
Children with Medicaid dental insurance	480	43%	84	16%
Hispanic children participating	53	5%	53	10%
Black children participating	254	23%		

School-Based Sealant Program
Data Recording System

Recording Form and Data Entry Protocol

Iowa Department of Public Health
Bureau of Oral Health
September 2001

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Introduction

The Iowa Department of Public Health, Bureau of Oral Health, has developed this Data Recording System to capture specific information about children using school-based sealant programs. Data captured, including dental insurance coverage, frequency of dental visits, and untreated decay rates are used to assess the oral health status of Iowa children and programmatic needs.

Forms to be used within this system include a Consent Form and a Sealant Data Recording Form. Both are found at the end of this protocol document. A Microsoft (MS) Excel Sealant Data File has been created to tabulate the information gathered, using SPSS Data Files to analyze the data.

Programs must use the Sealant Data Recording Form and the MS Excel Sealant Data File without making changes to them. Each sealant program has the option of creating their own consent form, but the Consent Form developed for use with this system contains the minimum information a program must incorporate into their own form.

A Sealant Data Recording Form must be completed for each child examined. Data must be entered into the MS Excel Sealant Data File for each child examined.

Most demographic information can be gathered from the Consent Form and entered on the Sealant Data Recording Form. The exam and sealant columns on the Sealant Data Recording Form are to be completed following oral examination and sealant placement.

IMPORTANT: All fields must be filled out and entered correctly into the Sealant Data Recording Form and Microsoft Excel Sealant Data File to ensure data integrity.

I. Completion of the Sealant Data Recording Form

A. DEMOGRAPHICS

STEP	PROCEDURE
1	Enter an ID number for each child examined. This is for the purpose of identifying a child for data clarification only. Each agency may begin with "1" and proceed to higher numbers or create their own numbering system. NO AGENCY SHOULD RE-USE A NUMBER.
2	Enter the county number or write in the county where the child lives. The Recording Key on the Sealant Data Recording Form identifies county numbers in your area.
3	Enter the child's age.
4	Circle "M" if the child is male or "F" if the child is female.
5	Using the Recording Key on the Sealant Data Recording Form, enter the correct number to identify the race of the child.
6	Write in the school district name. An abbreviation may be used, but the abbreviation must be defined when submitting the MS Excel data file.
7	Write in the name of the school.
8	Enter the child's grade number.
9	Identify the dentist who examined the child by last name or initials.
10	Circle "yes" or "no" to match the response to "Does your child have a dentist" on the consent form.

A. DEMOGRAPHICS, cont.

STEP	PROCEDURE
11	Circle "yes" or "no" to match the response to "Is your child eligible for the free/reduced lunch program at school" on the consent form.
12	Circle "6m", "12m", "3y", "5y", or "never" to match the response to "My child's most recent dental visit was within" on the consent form.
13	Circle "self", "XIX", "hawk-I", "ins", or "other" to match the response to "How do you pay for your child's dental care" on the consent form.

B. ASSESSMENT

STEP	PROCEDURE
1	Following the oral examination, use the Caries Prevalence Recording Key on the Sealant Data Recording Form to enter an assessment code for each tooth. Each tooth will receive a code, NOT EACH SURFACE. Observe the following hierarchy for teeth that may have more than one assessed criterion: sealed teeth have precedence over sound teeth, restored teeth have precedence over sealed teeth, teeth with untreated decay have precedence over restored teeth. Note: There is distinctive coding for PRIMARY vs. PERMANENT teeth, so there is no need to differentiate them in any other way.

C. TREATMENT

STEP	PROCEDURE
1	Following sealant placement, identify any tooth sealed in your school-based clinic with an "s" in the sealant column. Only teeth being sealed should be coded in this column. DO NOT FILL IN THIS COLUMN UNTIL AFTER THE SEALANT IS PLACED.

II. Data Entry for MS Excel Sealant Data File

A. ORGANIZATION OF SEALANT DATA RECORDING FORMS

STEP	PROCEDURE
1	Following exams, separate the Sealant Data Recording Forms for children **not** needing sealants from the other forms.
2	Sealant Data Recording Forms for children not needing sealants may be used for data entry into MS Excel immediately.
3	At the end of the month, gather the Sealant Data Recording Forms of children that had sealants placed. If the Sealant Data Recording Forms for children not needing sealants have not already been entered into MS Excel, gather these forms also. These will all be entered into the MS Excel Sealant Data File.

B. DATA ENTRY

STEP	PROCEDURE
1	Open the MS Excel Sealant Data File on the computer.
2	Save the file as <*Your Agency Name*>-Sealant-<*Month and Year*>.xls.
3	Enter information from the Sealant Data Recording Form for each participating child. Each child's data will be entered on one row of the MS Excel file. Follow the order of the recording form, which corresponds to the order of the MS Excel file columns. Important: Information must be entered as it appears on the Sealant Data Recording Form. (Example: if the school district is entered as "Jackson", type in "Jackson".) Note: The MS Excel file uses two cells for each posterior tooth. One is for the assessment code from the exam and one is for the sealant code (if placed), as they correspond to the exam and sealant columns on the recording form. Anterior teeth have one cell, for the assessment code from the exam.

B. DATA ENTRY, cont.

STEP	PROCEDURE
4	At the end of each month, send the MS Excel Sealant Data File to the Iowa Department of Public Health, Bureau of Oral Health. This may be done electronically (xchen@idph.state.ia.us and trodgers@idph.state.ia.us) or by mailing a disk to: Tracy Rodgers, RDH, BS Bureau of Oral Health Lucas State Building 321 E. 12th Street Des Moines, IA 50319
5	Each month, continue to enter children in the same MS Excel Sealant Data File, changing the name of the file the beginning of each month to correspond with that current month. Each time the file is sent to the Department, it should contain all previous months' information in addition to the current month's information. Note: The file sent to the Department should ONLY include children that have completed their treatment within the school-based sealant program. Never include a child that needs a sealant(s) but has not had a sealant(s) placed yet.

Consent Form

Child's name (last, first, MI)	County	Age	Date of Birth	
Address	Daytime phone May we call you there? Yes No		Male Female	Race
School	Teacher's Name		Grade	Room

_____**YES**, I give permission for my child to receive a dental exam and sealants.

Please answer the following questions:

1. Is your child currently under a physician's care? Yes No
2. Is your child currently taking any medications? Yes No
3. Has your child ever had any allergic reactions? Yes No

Please explain any YES answers:

_____

_____

_____**NO**, I do not give permission for my child to receive a dental exam or sealants.

_____

Signature of Parent or Guardian **Date**

1. Does your child have a dentist? Yes No If Yes, name of dentist_____
2. Is your child eligible for the free/reduced cost lunch program at school? Yes No
3. My child's most recent dental visit was within the last: (please check **one**)

   6 months 12 months 3 years 5 years Has never seen dentist

4. How do you pay for your child's dental care? (please check **one**)

   Self Medicaid / Title XIX hawk-i Private dental insurance Other

NO PAYMENT IS NEEDED FOR THIS EXAM / SEALANT PROGRAM

Medicaid will help cover the cost of this program. If your child is on Medicaid, please copy the following information as it appears on your card.

_____ _____ _____

Member Name Member ID Number and Suffix Social Security Number

Sealant Data Recording Form

Subject ID	County	Age	Sex M F	Race

District	School	Grade	Examiner

Dentist? **Y**es **N**o	Free/Reduced Lunch? **Y**es **N**o
Most Recent Visit? **6**m **1**2m **3**y **5**y **N**ever	Payment? **S**elf **X**IX **h**awk-i **I**ns **O**ther

RECORDING KEY

RACE

1 White
2 Black
3 Hispanic
4 Asian/Pacific Islander
5 Native American
6 Other
7 Undetermined/Unknown

COUNTY

07 Black Hawk
09 Bremer
38 Grundy
86 Tama
06 Benton
10 Buchanan

CARIES PREVALENCE

0 Unerupted / congenitally missing permanent tooth
1 Sound permanent tooth
2 Filled permanent tooth
3 Questionable permanent tooth
4 Decayed permanent tooth
5 Crowned permanent tooth

a Sound primary tooth
b Filled primary tooth
c Questionable primary tooth
d Decayed primary tooth
e Crowned primary tooth

s Sealed permanent tooth

	Tooth	Exam	Seal
UPPER RIGHT	1		
	2		
	3		
	4 A		
	5 B		
	6 C		
	7 D		
	8 E		
UPPER LEFT	9 F		
	10 G		
	11 H		
	12 I		
	13 J		
	14		
	15		
	16		
LOWER LEFT	17		
	18		
	19		
	20 K		
	21 L		
	22 M		
	23 N		
	24 O		
LOWER RIGHT	25 P		
	26 Q		
	27 R		
	28 S		
	29 T		
	30		
	31		
	32		

Example: Sealant Data Recording Form

Subject ID	County	Age	Sex	Race
33	***07***	***8***	[M] F	***1***

District	School	Grade	Examiner
Waterloo	***Jackson***	***3***	***JD***

Dentist?	Free/Reduced Lunch?
[**Y**es] **N**o	[**Y**es] **N**o
Most Recent Visit?	Payment?
6m **1**2m [**3**y] **5**y **N**ever	[**S**elf] **X**IX **h**awk-i **I**ns **O**ther

RECORDING KEY

RACE

1 White
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4 Decayed permanent tooth
5 Crowned permanent tooth

a Sound primary tooth
b Filled primary tooth
c Questionable primary tooth
d Decayed primary tooth
e Crowned primary tooth

s Sealed permanent tooth

	Tooth	Exam	Seal
UPPER RIGHT	1	***0***	
	2	***0***	
	3	***1***	***s***
	4 A	***d***	
	5 B	***b***	
	6 C	***a***	
	7 D	***a***	
	8 E	***1***	
UPPER LEFT	9 F	***1***	
	10 G	***a***	
	11 H	***a***	
	12 I	***b***	
	13 J	***a***	
	14	***1***	***s***
	15	***0***	
	16	***0***	
LOWER LEFT	17	***0***	
	18	***0***	
	19	***1***	***s***
	20 K	***a***	
	21 L	***a***	
	22 M	***a***	
	23 N	***1***	
	24 O	***1***	
LOWER RIGHT	25 P	***1***	
	26 Q	***1***	
	27 R	***a***	
	28 S	***a***	
	29 T	***a***	
	30	***1***	***s***
	31	***0***	
	32	***0***	

Microsoft Excel Sealant Data File

This is how the MS Excel Sealant Data File appears on a computer. This page is not wide enough to include all the cells contained in the MS Excel Sealant Data File. On the actual data file, the columns continue to Tooth 32. To illustrate the difference between cells for posterior teeth and anterior teeth, this example shows Tooth 1 and Tooth 2, then Tooth 6 and Tooth 7.

ID	County	Age	Sex	Race	District	School	Grade	Examiner	Dentist?	F/R Lunch?	Most Recent Visit?	Payment?	Tooth 1		Tooth 2		Tooth 6	Tooth 7
													EXAM	SEAL	EXAM	SEAL	EXAM	EXAM
			M or F						yes or no	yes or no	6m, 12m, 3y 5y, N	Self, XIX, hawk-I, insurance, other						

Example: Microsoft Excel Sealant Data File

This is an example of the MS Excel Sealant Data File with some data entered. This page is not wide enough to include all the cells contained in the MS Excel Sealant Data File. On the actual data file, the columns continue to Tooth 32. To illustrate the difference between cells for posterior teeth and anterior teeth, this example shows Tooth 2 and Tooth 3, then Tooth 6 and Tooth 7.

ID	County	Age	Sex	Race	District	School	Grade	Examiner	Dentist?	F/R Lunch?	Most Recent Visit?	Payment?	Tooth 2		Tooth 3		Tooth 6	Tooth 7
													EXAM	SEAL	EXAM	SEAL	EXAM	EXAM
			M or F						yes or no	yes or no	6m, 12m, 3y 5y, N	Self, XIX, hawk-I, insurance, other						
33	***07***	***8***	***M***	***1***	***Waterloo***	***Jackson***	***3***	***JD***	***Y***	***Y***	***3***	***S***	***0***		***1***	***s***	***a***	***a***
34	***07***	***8***	***F***	***2***	***Waterloo***	***Jackson***	***3***	***JD***	***N***	***Y***	***N***	***X***	***0***		***4***		***a***	***a***
35	***07***	***7***	***F***	***1***	***Waterloo***	***Jackson***	***3***	***JD***	***N***	***N***	***N***	***S***	***0***		***1***	***s***	***a***	***a***
36	***07***	***8***	***M***	***1***	***Waterloo***	***Hoover***	***3***	***HM***	***Y***	***Y***	***12***	***h***	***0***		***1***	***s***	***a***	***a***

ANNOTATION

The HRSA/MCHB grant funded a school-based sealant program in Iowa that targeted one urban and one rural location and served both elementary and middle school students, in an effort to prevent tooth decay for children from low-income and immigrant families. The Title V MCH contractors that implemented the programs were responsible not only for the oral examinations and sealant placement for participating children, but also for working with families that needed assistance accessing health or social services. This included finding payment sources for medical or dental care, assistance in scheduling medical and dental appointments, and even transportation to appointments. Over 3,600 children participated in the programs and over 3,200 of those children received the benefit of protective dental sealants. Community dental infrastructure was improved in both the urban and rural locations, as evidenced by greater awareness of oral health needs in the communities, growth of an oral health task force to identify ways to improve access to oral health care, and changes in organization budgeting to include payment for continuation of oral health services.

KEY WORDS

Sealant, School-based, Title V Maternal and Child Health, Preventive, Community infrastructure, Care coordination, Oral health