School-Based Oral Health Care: A Choice for Michigan Children

School Based Oral Health Care: A Choice for Michigan Children is part of an information set meant to serve as a guideline for school personnel developing school-based oral health programs (SBOHP) for Michigan children. These guidelines are meant to suggest best practices in SBOHP and are intended to help the interested parties achieve their objectives by suggesting guiding principles by which schools may implement and evaluate their school oral health programs. Furthermore, these guidelines are written broadly and can encompass services that may be offered by entities proposing to provide dental screenings, preventive dental care, or restorative services (fillings) on-site at schools during school hours.
Good oral health means more Michigan children having healthy teeth. Oral health is integral to good general health. Children with poor dental health are burdened by tooth decay, pain, infection, and difficulty chewing comfortably. Poor oral health frequently means poor performance, affecting a child’s ability to concentrate and excel in the learning environment. There are many barriers to underserved children receiving oral health care, but few if any of these are a child’s fault.

**BARRIERS IN ACCESS TO DENTAL HEALTH SERVICES**
- Lack of awareness on the importance of oral health
- Not learning good oral health care behaviors
- Low Medicaid program reimbursement rates for dental services
- Lack of or insufficient dental insurance
- Dentist non-participation with Medicaid/SCHIP in certain locales
- Lack of transportation
- Uncompensated time from work for parents

A school-based oral health program is one way to overcome these barriers to care and assure quality oral health care services for all children. Every Michigan child should have a fair chance to succeed. In taking steps to minimize oral health disparities, it is important to construct a program that is community-based. Collaborative, community-based programs seeking the contribution of a host of providers are vital to improving the oral health of the children in Michigan.

**THE ADVANTAGE TO SCHOOL-BASED DENTAL CARE**
- Children are treated in a place they can easily access
- Transportation issues are eliminated
- Children miss less time from school
- Low-income working parents miss less work
- Care is rendered in a place familiar and comfortable to children
- The treatment setting is generally culturally sensitive
- There is the opportunity for positive peer modeling
- An absent student can be easily replaced in the schedule
- School administrative support and individual knowledge of children enhances program success
- Portable equipment can be used in multiple sites
- School programs can be linked to community health centers, private dental offices, and safety net facilities

**THE DISADVANTAGE TO SCHOOL-BASED CARE**
- There is little face time with parents to discuss developing good oral health behaviors for their children
- There is some disruption in the school day when SBOHP providers are in the school
- Delivering comprehensive care in the school-based setting may be controversial
- Private dentists in the community may view the school-based program as competitive

**THE PREVALENCE OF DENTAL DISEASE IN MICHIGAN CHILDREN**
The Michigan Department of Community Health has been able to record the status of Michigan children’s oral health through a surveillance program called Count Your Smiles. The most recent report was in 2010. The Centers for Disease Control and Prevention’s Healthy People 2010 and Healthy People 2020 serve as indicators of the health status of U.S. residents. Of Michigan 6-year-olds, 56 percent have experienced dental decay. In addition, 27 percent of children aged 6 to 8 have untreated tooth decay. Regrettably, only 26 percent of low income children had received dental sealants on the permanent first molars. We know that 28 percent of children bear 75 percent of the dental disease in Michigan. Low income children have a disproportionate share of dental disease with a high percentage of these same children being of a racial or ethnic minority.

**PREVENTING DENTAL DISEASE**
Fluoride is a naturally occurring element. It can bind irreversibly to the crystalline structure of the enamel of
# TABLE 1. SERVICE OPTIONS

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
<th>Services Typically Included</th>
<th>Equipment and Resources Needed</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening and Education</td>
<td>A dental professional does a visual assessment of the children’s oral health. Parents/guardians are notified of their children’s oral health status and a referral to care is provided for those children identified as having treatment needs. Oral health education is typically provided to all children in the classroom.</td>
<td>No dental equipment is needed.</td>
<td>No dental equipment is needed.</td>
<td>During the assessment process children will be identified who may have untreated dental disease. Therefore, an important component of screening/education programs is to have a referral network of local dentists who are willing to diagnose and treat children who may be identified as having possible treatment needs.</td>
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<td>Fluoride Rinse</td>
<td>Used in communities without water fluoridation. A fluoride rinse is swished in the mouth and then spit out. It is done on a daily or weekly basis, depending on resources.</td>
<td>Screenings may or may not be offered</td>
<td>No dental equipment is needed.</td>
<td>Costs of the program will vary depending on whether one is using volunteers, existing school personnel, or paying someone just to administer the program. All necessary supplies for a school that is accepted into the program.</td>
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<td>Fluoride Varnish</td>
<td>Used in all settings. A resin-based fluoride varnish is applied to teeth by a dental professional. The resin quickly dries on the tooth and is absorbed over the course of several hours. Varnish is typically applied at least every six months, more often if there is a risk for tooth decay. Screenings and referrals are typically included in these programs.</td>
<td>Screenings may or may not be offered</td>
<td>No dental equipment is needed.</td>
<td>Must have a licensed dental professional or other designated health professional apply the fluoride varnish.</td>
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<tr>
<td>Dental Sealant</td>
<td>Used in all settings. A dentist or dental hygienist will assess each child’s need for dental sealants and will place the resin-based sealants. To provide the greatest benefit to children enrolled in these programs, school-based dental programs also provide fluoride varnish and/or dental cleanings. Priority is often given to 2nd and 3rd graders (ages 6-8), as well as 6th and 7th graders (ages 11-13) for permanent teeth only. Oral health education is typically provided to all children in the classroom.</td>
<td>Screenings Cleaning Sealants Referral for treatment</td>
<td>Necessary equipment: Dental Chair Light Source (Curing Light) Water and Suction Unit Compressor</td>
<td>Must have a dentist or dental hygienist apply the sealants. Although this program focuses on providing preventive services, during the assessments children will be identified who may have untreated dental disease. Therefore, an important component of a dental sealant program is to have a referral network of local dentists who are willing to diagnose and treat children with dental disease. The retention of sealants over time is an important indicator of program quality. High quality sealant programs will check the retention of the sealants they placed the previous year and should be able to provide you with a retention rate. Retention rates of greater than 80% should be expected. Most programs will also replace any lost sealants free of charge as long as the child is still enrolled in the program.</td>
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our teeth, rendering the enamel stronger and more resistant to the tooth decay process.\textsuperscript{3} Fluoride is effective in this strengthening of enamel during the development and maturation of teeth, and it is also effective when applied to the surfaces of teeth after they are fully developed.\textsuperscript{1} This topical fluoride application in toothpaste, rinses and professionally applied fluoride treatments is an important and effective part of the prevention of tooth decay.\textsuperscript{1}

**COMMUNITY WATER FLUORIDATION**

Community water fluoridation involves adjusting the naturally occurring level of fluoride that is in our drinking water to an optimal level that has been shown to be most effective to prevent tooth decay.\textsuperscript{6} The Centers for Disease Control and Prevention has heralded water fluoridation as one of the top 10 most important public health measures of the 20th century. Just as immunization is important to the prevention and spread of serious infectious diseases, water fluoridation is a public health measure of similar importance to the prevention of dental disease.\textsuperscript{3} Community water fluoridation is also the most cost-effective preventive measure for tooth decay. It is estimated that for every $1 spent on fluoridation, a savings of $38 is realized in the need for future dental treatment.\textsuperscript{3}

**TOPICAL FLUORIDE**

Fluoride applied topically to the teeth is another effective prevention-based treatment option for school-based dental care programs.\textsuperscript{2} Professionally applied fluoride gels administered by dentists, dental hygienists, or registered dental assistants are an effective method of fluoride application.\textsuperscript{3} In Michigan, physicians, nurses, and other health providers may apply fluoride as a painted-on varnish. A child at moderate to high risk of dental decay benefits from two professionally applied fluoride treatments per year. Michigan has 91 percent of its water fluoridated.\textsuperscript{8} In areas where water fluoridation is absent, fluoride mouth rinse programs are a dental prevention-based strategy.

<table>
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<th>TABLE 2. DIFFERENCES BETWEEN PREVENTION AND COMPREHENSIVE CARE</th>
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<tr>
<td><strong>Services Provided</strong></td>
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<tr>
<td>Dental Hygiene Examination</td>
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<td>Screenings</td>
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<td>Fluoride</td>
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<td>Sealants</td>
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<tr>
<td>Referrals for Diagnosis/Treatment</td>
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<tr>
<td>Cleanings*</td>
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<tr>
<td>*Cleanings are not necessary for the placement of dental sealants.</td>
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<td><strong>Necessary Equipment</strong></td>
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<td><strong>Services Commonly Referred Out</strong></td>
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that is easy to administer for most any school.

DENTAL SEALANTS
Dental sealants are a plastic material placed on the pits and fissures of the chewing surfaces of teeth where up to 90 percent of decay occurs in school children. Sealants prevent tooth decay by creating a barrier between the teeth and decay-causing bacteria. Sealants also stop cavities from growing and can prevent the need for expensive fillings. Sealants are 100 percent effective if they are fully retained on the tooth. According to the Surgeon General’s 2000 report on oral health, sealants have been shown to reduce decay by more than 70 percent. The combination of sealants and fluoride has the potential to nearly eliminate tooth decay in school-aged children. Sealants are most cost-effective when provided to children who are at highest risk for tooth decay. Dental sealants are simple to place and may be placed by dentists and dental hygienists.

IMPROVED ACCESS
Your school-based oral health program should be designed to fit your school’s needs. Devoting sufficient time to completing a needs assessment of your children in a collaborative manner is important to success. The involvement of your school health advisory committee, parent groups, and health care professionals can help your school make good decisions on the design of your SBOHP. Although program goals are achieved one child at a time, priorities for your SBOHP are important to identify. Successful programs are community-based and improve access to dental care by reducing barriers to care for all children. Follow-up care with students who present emergent needs should be available. In addition, the program should operate efficiently, ensure quality care, and maximize the use of public funding while providing treatment data without violating confidentiality guidelines.

Services that can be offered include the following:
- Dental education
- Oral screenings
- Fluoride applications
- Sealant placement
- Comprehensive care
- Referral for follow-up care

POTENTIAL OBJECTIVES FOR A SCHOOL-BASED ORAL HEALTH PROGRAM
In partnership with community dental providers, a school-based oral health program can enhance education, enhance dental services, and reduce barriers to dental care. Possible goals for a SBOHP include the following:
- Increase the proportion of children who receive oral health care each year.
- Increase the proportion of low income children who receive preventive dental care each year.
- Reduce the prevalence of children with untreated dental decay.
- Reduce the proportion of children who have dental decay in their primary or permanent teeth.

PROGRAM TYPES FOR DENTAL CARE PROVIDED IN SCHOOL-BASED PROGRAMS
School-based oral health programs can be mobile, portable, or at fixed sites. The providers can include all members of the oral health care team: dentists, dental hygienists and dental assistants. These providers can be affiliated with local community clinics, health centers, private dental practices, or other enterprises designed to provide school-based care. Mobile dental programs utilize a full set of dental equipment that is located in a van or other mobile vehicle. Portable dental programs use limited dental equipment that can be transported by car and set up on the day of service in the school. A fixed clinic site is a full dental clinic permanently installed in the school building or nearby.

The types of oral health care services provided by school-based providers will vary, ranging from screenings only to comprehensive dental care. Individual communities will have individual needs so that the program offerings should vary. It is important to match need with services when designing the SBOHP and selecting the providers and services to be offered. Due to limited resources for most programs, priority for sealant placement should be given to 6- to 8-year olds for placement on permanent six-year molars and age 11- to 13-year-olds for placement on permanent 12-year molars. The tables in this document provide basic information about the different types of care that can be offered in SBOHPs.
ENCOURAGING LOCAL DENTIST PARTICIPATION

Strong SBOHPs are community-based and demonstrate relationship-building attributes that further the program’s success. The involvement of local dental providers is important to your program’s success. You may wish to seek out dentists in your area active in the Points of Light Program, an interprofessional young child assessment and referral program, and dental providers active in the Head Start program as resources for developing your SBOHP. When seeking local dental provider support, you should consider the following:

- Emphasize that the school-based oral health program is not competitive
- Involve local dental providers early in the planning of the program, so that the SBOHP is community-based
- Have local dental providers assist in an analysis of the community-to-private dental provider ratio to determine the availability of referral for children needing care beyond the scope of your SBOHP
- Know that support of local dental providers is important to the capacity to follow-up in SBOHPs and is crucial to program success
- The recognition by local private dental providers’ inability to serve all children provides support and a rationale for SBOHP and develops an environment where support for referrals is accepted

THE DENTAL HOME

A dental home is a source of continuous, comprehensive, and compassionate oral health care delivered by a dentist. To determine if a child has a dental home, ask families the following questions:

- Does your family have a dentist?
- If yes, does the dentist treat all of your children?
- When was the last time your child went to the dentist? Was the visit for an examination or a problem?
- How many times in the last year was your child seen by the dentist?
- When is the next time you plan to take your child to the dentist? Is there an appointment scheduled?
- If the child does not have a dental home, why?

Many children will not have a dental home, and they should be treated by the SBOHP. It is also best that SBOHP services not supplant a child and family’s dental home. This approach conserves resources and adds efficiency to the rendering of services for children who need the services the SBOHP has in place. A child having a dental home should not receive services from a different dental provider unless and until the provision of those services is coordinated with the dental home. It should be the responsibility of the SBOHP dental service provider to avoid treating children with a dental home until such coordination is achieved and documented.

INFORMED CONSENT

The oral health services provided in the SBOHP setting require a written informed consent that is specific to the scope of services that will be provided as well as the time frame for the delivery of these services. The services may only be provided if signed consent is received from the parent, legal guardian, or an emancipated minor and is recorded by the school. The SBOHP should be able to provide the process in the language(s) most appropriate for the children and families being served. The informed consent should include a statement that the parent or guardian recognizes that the services being permitted may be provided by an existing dental home rather than the SBOHP providers.

REGULATORY CONSIDERATIONS

At the present time, there are no specific rules or statutes governing school-based oral health programs in Michigan. Where dentists, registered dental hygienists, or registered dental assistants are providing services, all applicable state statutes and regulations pertain to these providers in a SBOHP setting. All licensed providers must comply with Michigan OSHA infection control standards, including the management of engineering controls for the isolation and removal of materials from the treatment site as well as the use of personal protective equipment (specialized clothing worn by the service providers). Depending upon the equipment to be used, there may be federal, state, and local statutes or regulations pertaining to the operation of the same equipment with which the licensed provider should comply.

REPORTING OF SERVICES RENDERED

At the conclusion of each visit, the dental provider(s) should provide a written report and a patient information sheet to the parent or guardian as well as to the official designated by the school. If the services rendered...
have been coordinated through a child’s existing dental home, the written report must also be provided to that dental home. The patient information sheet should include the following:

- Results of the dental examination or dental hygiene screening
- The names of the dental providers who provided the services
- A description of the services rendered, including those services billed by service code and fee charged associated with the care, as well as any tooth numbers when appropriate
- Evidence of a timely written referral to a dentist for any emergent dental care needs
- Names of dentists or organizations providing dental services located in a reasonable distance from the child’s home that the SBOHP should have communicated with regarding acceptance of referrals for care

**AVAILABLILITY OF PATIENT RECORDS**

The patient information sheet and/or written summary of the screening, examination, or treatment should be provided to the school official designated to coordinate the SBOHP.

**REFERRALS**

Dental professionals providing services in schools must have a written procedure for referral of the children for emergency or other follow-up treatment. These referrals would include necessary treatment by the child’s dentist or another dentist with whom the SBOHP provider has communicated regarding acceptance of referrals. Referrals should be completed in a timely manner.

**TIPS FOR PROMOTING ORAL HEALTH WITH CHILDREN AND PARENTS**

Most oral health problems can be prevented. Short educational modules on oral health promotion and behaviors fostering good oral health are available from many sources. The following are ideas to improve oral health literacy and encourage healthy behaviors:

- Talk about children’s oral hygiene practices: brushing and flossing as an oral health assessment
- Teach children what a healthy mouth looks like, how to recognize early signs of cavities, and what can be done to reverse and treat dental problems
- Stress the importance of good oral hygiene, including brushing teeth with fluoridated toothpaste at least twice a day (morning and night) and flossing daily, preferably before brushing at night
- Encourage children to eat right, stay away from sweetened beverages, and drink more water
Find opportunities to talk to parents, gauging their knowledge and understanding of the importance of oral health, oral hygiene, healthy diet, and regular dental visits.

CONCLUSION

School-based oral health programs can be instrumental in improving the oral health of Michigan children by improving access and removing barriers to care for children. Those children coming from communities where access is a problem can especially benefit from school-based care. Providing healthier smiles helps make children ready to learn. The good work of collaborating between schools, school districts, local dentists, and school-based oral health programs creates winning partnerships. Such partnerships put children on the path to good oral and overall health, benefiting them throughout their lives.

REFERENCES


5. “School-Based Dental Health: Considerations for Program Development.” Allen, Erica M. Hahnemann University Department of Public Health-Philadelphia, 2011.


9. Lois Havermans RDH, CHES. Oral Health Program Coordinator, Ottawa County Michigan Health Department “Miles of Smiles”. Presentation to the Michigan Dental Association Special Committee on Access to Care, February 2012

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