In 2016, The Pew Charitable Trusts’ dental campaign set out to explore the policy and regulatory barriers that may be impeding the growth of school-based sealant programs. Pew focused its attention on two challenges: barriers to Medicaid managed care inclusion, and laws or rules that restrict the ability of hygienists to provide care in schools. This second of two briefs details a variety of state-imposed restrictions on dental hygienists that work against opportunities for children to receive sealants in perhaps the most convenient location—their schools.

Overview

A strong research base finds that dental sealants are highly effective in preventing tooth decay. Sealants can reduce the risk of decay in permanent molars—the teeth most prone to cavities—by 80 percent in the first two years after application and continue to be effective after more than four years.¹

Yet most low-income children—who are least likely to receive routine dental care—lack sealants. According to the most recent data, 61 percent of low-income 6- to 11-year-olds (6.5 million) lacked sealants.² A recent study found that if all 6.5 million low-income children who lacked sealants were to receive them, it would prevent 3.4 million cavities over four years.³ With this strong evidence of sealants’ effectiveness, the Centers for Disease Control and Prevention, the Association of State and Territorial Dental Directors, the American Association of Public Health Dentistry, and numerous other health organizations recommend sealant programs in schools, especially as an optimal location to provide low-income children with preventive care.⁴ Yet a 2015 Pew report found that such programs are in fewer than half of high-need schools in 39 states.
This brief describes a range of state-based regulations or policies that either limit or prohibit dental hygienists from sealing children’s teeth at school, or create financial burdens that work against the expansion of school sealant programs. Research and experience find that these rules and policies do not have the effect of protecting the public from unsafe dental practice, nor do they promote the efficient use of public resources. Information was compiled from interviews with state dental directors, Medicaid officials, school sealant providers, and other state-level oral health stakeholders. A questionnaire of state dental directors administered by Pew research staff in 2016 with the help of the Association of State and Territorial Dental Directors further informed the brief.

Responses from 44 state dental directors—as well as a range of other state policy stakeholders—reveal that experts in multiple states perceive a range of regulatory and policy barriers. It is beyond the scope of this report to review 50 state practice acts and related documents required to identify every state where barriers exist. Instead, this report describes the nature of the barriers and includes examples of states where Pew has confirmed they exist. The report’s appendix provides more detail on the perceptions of state dental directors.

What are the barriers?

State dental directors identified a range of barriers emanating from two major sources. First, state dental practice acts define scope of practice (what procedures are allowed) and supervision requirements for hygienists. Additionally, Medicaid policies set payment rates, identify which providers can bill for services, and may limit reimbursement to certain practice settings. In many instances these barriers exist despite research and experience that argue against their necessity.

State practice acts might include requirements that dentists examine children before a hygienist can seal their teeth in school, that dentists be present while a hygienist performs this service, or that private dentists cannot employ hygienists working in schools. They may also include rules that set very low limits on the numbers of school-based hygienists that any one dentist can supervise. In describing dental hygiene scope of practice rules, a 2016 report from the national Oral Health Workforce Research Center stated, “State-based regulatory constraints for dental hygienists may impede access to care as much as the economic and logistical barriers that are known to prevent some patients from obtaining oral health services.”

In more recent research, the center found that a “more autonomous dental hygienist scope of practice had a positive and significant association with population oral health in both 2001 and 2014.”

Medicaid policy barriers include low reimbursement rates for sealants, state prohibitions on reimbursing for care provided outside of a dental office or clinic, and requirements that hygienists running school-based prevention programs bill Medicaid through a supervising dentist, not directly.

Dental practice act barriers

Most state dental practice acts allow hygienists to practice in schools or other community settings, usually by including language related to how closely a dentist needs to supervise care or scope of practice. While there is no uniform term for hygienists who can practice in community settings other than dental offices or clinics, they are often referred to as “public health” or “expanded function” dental hygienists. States most often require one or more of the following prerequisites for these types of hygienists: additional training, a formal referral relationship with a dentist or public health agency, administrative filing with the Board of Dentistry, and/or a collaborative management agreement with a supervising dentist specifying the terms under which the hygienist may practice in a school.

The following sections describe an array of restrictions written into state dental practice acts that make it difficult for hygienists to deliver cost-efficient care to children at school.
Prior exam rules

These rules require that a student be examined by a dentist before receiving a sealant in school from a hygienist. These requirements exist because regulators are concerned that a hygienist would not be able to identify which teeth should be sealed and which should not. However, the decision to seal a tooth rests almost entirely on visual detection of whether decay has broken through the tooth surface to create a cavity. Dental hygienists learn how to determine whether dental decay has extended into a cavity and whether it is appropriate to place a sealant. Research has shown that about two-thirds of the cost per child of a school-based sealant program can be attributed to labor. Program costs are lower when hygienists, instead of dentists, are making sealant determinations.

Over the past decade, advocacy efforts have led to the repeal of prior exam rules in several states. However, the rules remain in the District of Columbia and the following 10 states: Alabama, Delaware, Hawaii, Indiana, Louisiana, Maryland, Mississippi, North Carolina, Texas, and Wyoming.

South Dakota has no prior exam rule but requires that students see a dentist within a certain amount of time after having a sealant placed in school. Students who don’t see a dentist within this time frame are not allowed to receive additional services from the school-based program. Restricting eligibility to school-based sealant programs, which are intended to reach children with no regular dentist, excludes those who need the services most.

In addition to prior exam rules, Alabama and Mississippi require dentists to be present at school sealant programs when hygienists seal teeth. This rule significantly raises the cost of running school sealant programs with no evidence that such protocols lead to safer, more effective care, creating disincentives to their continuation and expansion.

Employment requirements

In Kentucky and Virginia, only government employees can supervise public health hygienists. This requirement does not allow for an ample supply of school-based hygienists given the history of budget cuts for state and local public health departments. Without this restriction, private practices and nonprofits could participate, as many do elsewhere.

Other states place strict limits on the number of public health hygienists that any one dentist can supervise. For instance, in North Carolina, a dentist can supervise no more than two public health hygienists at a time. When dentist supervision is a requirement, as it is in nearly all states with public health hygienists, narrowing the pool of available supervisors limits the potential for program growth.

Procedures allowed under general supervision

Hygienists trained in programs that meet the American Dental Association’s Commission on Dental Accreditation standards have mastered competencies including oral health hygiene and education, preventive care, cleaning, and procedures contributing to the assessment of dental conditions (including taking X-rays, charting, and visually assessing dental decay). The array of procedures a hygienist is allowed to provide depends on the state and may or may not include administering local anesthesia and nitrous oxide, placing or removing temporary restorations, and other procedures. Dentist supervision levels for procedures also vary by state.

A number of states do not allow public health hygienists to practice their full scope of procedures in a school setting under general supervision (without the dentist present). School-based sealant programs often offer students additional services that can include screenings, X-rays, cleanings, and fluoride varnish preventive treatments. Some states that allow hygienists to apply fluoride varnish treatment and perform interim
therapeutic restorations (temporary fillings) in a dentist’s office do not allow them to offer these services in a school setting. Removing items from a hygienist’s toolkit in a school setting—or not allowing hygienists to practice the full scope of their license—hobbles their ability to deliver appropriate care. These restrictions have not been shown to demonstrably improve children’s oral health, or expedite comprehensive dental care delivery to a dental office setting.

**Medicaid policy barriers**

Medicaid is the dental insurer for 40 percent of the nation’s children, and for nearly 80 percent of all poor children (whose family income is less than $25,000 per year). It is a major funding source for school-based sealant programs, and a number of state dental directors report that its payment rates and certain policies surrounding care delivery are working against the expansion of school sealant programs in a number of states.

**Medicaid reimbursement rate**

Of the 44 state dental directors who responded to Pew’s questionnaire, 16 reported that the Medicaid reimbursement rate set by the state negatively affects school-based sealant programs. Low Medicaid reimbursement rates are a challenge across the country, where on average Medicaid reimburses 62 percent of private insurance reimbursement for children, and 46 percent for adults. Because it is difficult to financially sustain a program while operating with discounted reimbursement, many school sealant programs seek funding from other federal or state government sources, as well as corporations and philanthropies. Yet states report that Medicaid reimbursement remains a critical component of funding, contributing revenue to the majority of school-based program budgets.

<table>
<thead>
<tr>
<th>Table 1 School-Based Sealant Program Sponsors Participating entities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funding sources</strong></td>
</tr>
<tr>
<td>Maternal and Child Health Services Block Grant</td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention grants</td>
</tr>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>State appropriations</td>
</tr>
<tr>
<td>Nonprofit/foundation grant funding or other support</td>
</tr>
<tr>
<td>Corporate sponsorship/support</td>
</tr>
</tbody>
</table>

Note: Based on 44 of 51 state responses to a questionnaire fielded by The Pew Charitable Trusts and the Association of State and Territorial Dental Directors in October/November 2016.

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Reimbursement of services based on location

The dental directors of four states (Alaska, Arkansas, Hawaii, and South Dakota) indicated that Medicaid does not reimburse for care delivered outside of a traditional brick-and-mortar dental clinic or office. When school-based sealant programs cannot bill Medicaid, whose costs are shared by federal and state governments, for services provided, programs must rely more heavily on philanthropic contributions and state/county discretionary funding, which is never guaranteed.

Allowing hygienists to bill Medicaid directly

Currently, 32 states and the District of Columbia do not allow hygienists to bill Medicaid directly for services. Instead, they must bill through their supervising dentists, requiring both clinical supervision and a financial arrangement to sustain the program. In some states, this may not be a barrier, because the supervising dentists facilitate timely billing and reimbursements. However, 18 out of 44 dental directors identified this rule as a barrier to school sealant program expansion. In addition, some states that employ Medicaid managed care for dental services—for example, Nevada—report that contracted insurers are not allowing hygienists to bill Medicaid directly even though they can do so under the state’s Medicaid fee-for-service program. The inability to bill directly in many cases causes payment delays to programs. States also report that dentists are reluctant to supervise school-based hygienists because of lack of administrative capacity to handle billing.

Figure 1
Insufficient Hygiene Workforce for Schools
School hygiene shortage despite state-level surpluses
Most states have a hygienist surplus, and projections by the federal government show this situation is likely to persist into 2025. Yet 13 states in our questionnaire (12 of which have reported surpluses) indicated that there were not enough hygienists to visit all interested schools. Six states identified this as the single-largest barrier that restricts school-based sealant programs from expanding into more schools and reaching more kids. Market forces may be at play. For a variety of reasons, the available salary for a public health hygienist may not be competitive, there may be too few hiring agencies, or unemployed hygienists may not be aware of this career option. The mismatch is striking, and state stakeholders may want to consider whether there is a common policy solution to both an overall hygienist surplus and a shortage of school-based hygienists.

**Federal Trade Commission Weighs In on Merit of Indirect Supervision and Prior Exam Requirements**

Over the past two decades, the Federal Trade Commission (FTC), with its charge to prevent unfair methods of competition affecting commerce, has weighed in numerous times to state dental boards on what it has deemed as overly restrictive regulations placed on dental hygienists. In assessing the merits of restrictive scope-of-practice rules for health professionals, FTC staff members often have asked policymakers to consider the potential consequences of cost increases for services and reduced provider competition for market share, especially when there does not seem to be any evidence that these restrictions are needed to protect the safety of patients.

In 2003, the FTC successfully sued the South Carolina Board of Dentistry for reinstating a prior exam requirement for hygienists practicing in public schools, after the requirement had been explicitly removed by the state legislature in 2000. A state administrative law judge had found the prior exam rule to be “unreasonable.” The FTC charged that the dental board, in reinstating the rule, “eliminated cost-effective competition for the provision of preventive dental services and deprived thousands of children of the care that they needed.”

In addition to bringing this enforcement action, the FTC has filed various comments advocating for less restrictive scope-of-practice rules. For example, in December 2010, FTC staff urged the Georgia Board of Dentistry not to adopt proposed rule changes that would have required dentists to indirectly supervise hygienists delivering preventive care at approved public health facilities and could have been interpreted to require a dentist’s diagnosis before a hygienist could deliver school-based prevention. Staff told the board that the proposed changes likely would have raised the cost of such services and reduced the numbers of consumers receiving dental care, “with no evidence that additional supervision was needed to prevent harm to dental patients.” In 2011, the FTC urged the Maine Board of Dental Examiners to abandon proposed rules that would have required independent practice dental hygienists participating in a pilot project to improve access to care in underserved areas to have a dentist present in order to take certain radiographs.
“Oral health experts agree that these restrictions [indirect supervision, prior exam rule, etc.] are not always necessary to protect patient health and safety, and may be particularly harmful in public health settings and dental shortage areas where people lack adequate access to preventive services,” said Tara Koslov, acting director of the FTC’s Office of Policy Planning. “We urge legislators and policymakers to seriously consider whether restrictive supervision requirements are necessary to address any legitimate and substantiated health and safety concerns.”

**Conclusion**

This study aimed to examine the range of barriers that limit the ability of school-based sealant programs to deliver services to at-risk children. Though the research was not exhaustive, it revealed that a variety of policies and regulations stand as barriers to any efforts to launch or expand school sealant programs. Regulations and rules are intended to protect the public safety and to promote the efficient use of public resources. It is troubling that the policies identified here impede both aims. Governmental and health organizations have endorsed school sealant programs as an optimal way to reach children who are most at risk of dental decay in their permanent teeth with a prevention technique that is cost-efficient and powerfully effective. A more comprehensive review of all state practice acts and related rules would provide a roadmap for state reform efforts. State lawmakers interested in improving the oral health of low-income children could consider proposals to remove these and similar barriers in their jurisdictions.

**Acknowledgments**

The authors wish to thank Christine Wood, executive director of the Association of State and Territorial Dental Directors, for collaborating with Pew on the design of a questionnaire of state dental directors that informed this report, and for collecting and recording the responses. Appreciation also extends to Evelyn Ireland, executive director of the National Association of Dental Plans, for helping the authors receive input from a range of dental plan officials.
Appendix 30

Pew research suggests that the barriers listed in Table A.1 present the most immediate and compelling impediments to school-based sealant programs.

Table A.1
School-Based Sealant Program Barriers
What state dental directors see as factors that prevent sealant programs from expanding into more high-need schools

<table>
<thead>
<tr>
<th>Program barrier</th>
<th>How many states affected*</th>
<th>How many states said this barrier was worst†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough hygienists to visit all interested schools</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Medicaid does not reimburse for care provided outside of a clinic/office</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Medicaid does not allow dental hygienists to bill directly for care provided in schools</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Medicaid managed care contracts language</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Medicaid reimbursement rate</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>A child has to see a dentist within a certain amount of time in order for a hygienist to be able to place a sealant, either before or after</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>A child needs to be seen by a dentist first in order for a hygienist to place a sealant in a school</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Limits on who can employ or supervise public health hygienists to be able to place sealants in schools</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Restrictions on community health center administration/coordination/billing</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Table is organized by the order of the questionnaire.
* 44 total responses to a questionnaire fielded by The Pew Charitable Trusts and the Association of State and Territorial Dental Directors in October/November 2016.
† 32 total responses to a questionnaire fielded by The Pew Charitable Trusts and the Association of State and Territorial Dental Directors in spring 2016.

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<table>
<thead>
<tr>
<th>State</th>
<th>Barriers</th>
</tr>
</thead>
</table>
| Arkansas | • Medicaid does not reimburse for care provided outside of clinic/office.  
• Medicaid does not allow dental hygienists to bill directly for care provided in schools. |
| Hawaii   | • Medicaid does not reimburse for care provided outside of a clinic/office.  
• Medicaid does not allow dental hygienists to bill directly for care provided in schools.  
• A child has to see a dentist within a certain amount of time in order for a hygienist to be able to place a sealant or check its status, either before or after. |
| Idaho    | • Limits on who can employ or supervise public health hygienists to be able to place sealants in schools.  
• Medicaid does not allow dental hygienists to bill directly for care provided in schools. |
| Kentucky | • Not enough hygienists to visit all interested schools.  
• A child needs to be seen by a dentist first in order for a hygienist to place a sealant in a school.  
• Low Medicaid reimbursement rate.  
• Limits on who can employ or supervise public health hygienists to be able to place sealants in schools. |
| Louisiana| • Not enough hygienists to visit all interested schools.  
• Medicaid does not allow dental hygienists to bill directly for care provided in schools.  
• A child has to see a dentist within a certain amount of time in order for a hygienist to be able to place a sealant or check its status, either before or after.  
• A child needs to be seen by a dentist first in order for a hygienist to place a sealant in a school.  
• Limits on who can employ or supervise public health hygienists to be able to place sealants in schools. |
| Pennsylvania| • A child needs to be seen by a dentist first in order for a hygienist to place a sealant in a school.  
• Limits on who can employ or supervise public health hygienists to be able to place sealants in schools.  
• Medicaid does not allow dental hygienists to bill directly for care provided in schools. |

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<table>
<thead>
<tr>
<th>State</th>
<th>Barriers</th>
</tr>
</thead>
</table>
| South Dakota | • Medicaid does not reimburse for care provided outside of a clinic/office.  
• Medicaid does not allow dental hygienists to bill directly for care.  
• Low Medicaid reimbursement rate.  
• A child needs to be seen by a dentist first in order for a hygienist to place a sealant in a school.  
• A child has to see a dentist within a certain amount of time in order for a hygienist to be able to place a sealant or check its status, either before or after.  
• Limits on who can employ or supervise public health hygienists such as restricting employment to local health departments or school districts. This prohibits nonprofit organizations or private practice dentists from participating in school-based sealant programs coordinated by the state. |
| West Virginia| • Not enough hygienists to visit all interested schools.  
• Medicaid does not allow dental hygienists to bill directly for care provided in schools.  
• A child has to see a dentist within a certain amount of time in order for a hygienist to be able to place a sealant or check its status, either before or after.  
• Restrictions on community health center administration/coordination/billing. |
Endnotes


2 Griffin et al., “Vital Signs.”

3 Ibid.


13 Kentucky Administrative Regulations governing dental hygienists, Chapter 27, § 313.040 1-9; Commonwealth of Virginia, Virginia Regulations Governing the Practice of Dental Hygiene, Virginia Board of Dentistry, 18 VAC 60-25-10 et seq., § 54.1-2400 and Chapter 27 of Title 54.1 of the Code of Virginia.


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