

## Evidence-Based Approaches for Promoting Oral Health

Based on strong evidence of effectiveness for preventing or reducing tooth decay, the Community Preventive Services Task Force (Task Force) recommends community-wide programs, including community water fluoridation and school-based and school-linked dental sealant delivery programs (Table 1).

Implementation of these recommendations also helps states achieve national oral health objectives, such as the [Healthy People 2020 oral health objectives](#) in support of community water fluoridation and school-based dental sealant programs.

### Task Force Recommendations for Preventing Dental Caries:

- [Community Water Fluoridation](#)
- [School-based or Linked Sealant Delivery Programs](#)

**Table 1: Summary of Select Task Force Recommendations**

Intervention	Description	Task Force Findings
Community Fluoridation	Fluoridation programs add fluoride to community water sources to achieve the optimal fluoride concentration level.	Strong evidence of effectiveness in reducing tooth decay. Further, the Task Force concluded that programs are safe and cost-effective. The Task Force found a median decrease of 29.1% in tooth decay among children ages 4-17 when compared with control groups.
School-based or linked sealant delivery programs	Programs deliver dental sealants—thin plastic coatings applied to the chewing surfaces of back teeth—to children in school-based or school-linked settings (i.e., clinics or private practices).	Strong evidence of effectiveness in preventing or reducing tooth decay among children. The Task Force found a median 60 percent decrease in cavities for children between ages 6-17.

**Source:** The Guide to Community Preventive Services, 2011.

**Translating Recommendations into Public Health Practice and Policy.** The Guide to Community Preventive Services (The Community Guide) recommendations provide evidence-based options for state and territorial health agencies to reduce disease and promote oral health.

*Partnerships.* Implementing community fluoridation programs and school-based sealant programs requires participation by multiple public, private, and nonprofit stakeholders. Sealant programs can involve partnerships between state and local health department oral health programs, the state board of dentistry, schools of dentistry, school nurses, and other school staff. Community fluoridation programs typically involve state and local public health officials, water plant engineers, dental providers and physicians, consumers, and educators. National, state, and local foundations that focus on oral health have an active role in many states. State legislators may also be involved through policy development or program outcome reporting requirements.

*Issues and Considerations.* Community-based interventions share common characteristics, including stakeholder engagement and multiple approaches. Stakeholders often convene in a fluoridation or sealant advisory board that may participate in a broader local or statewide oral health coalition. Further, a combination of evidence-based strategies—including those aimed at assessing needs, developing effective policies, training the public and dental workforce, and ensuring access to fluoridated water and dental sealants—can deliver population-based benefits as well as targeted approaches to reach high-risk populations.

*Action Steps.* The action steps that follow in Table 2 provide a continuum of options for state agencies and other employers that want to implement community-based oral health interventions.

**Table 2. Action Steps and Options**

Phase	Action Steps and Options
Pre-Implementation	<ul style="list-style-type: none"> <li>• <b>Inform and educate</b> internal and external partners (e.g., policymakers, providers, school officials, community coalitions, and the public) about oral health data and evidence-based interventions. Provider-focused training, as well as public information campaigns, can promote awareness and support. Annual oral health reports can inform state and local policymakers about trends and challenges, and fact sheets and other educational materials can educate parents, teachers, and adults about oral health resources and interventions.</li> <li>• <b>Engage key partners</b> (including those listed above). Local oral health coalitions and advisory groups provide a useful, community-based structure for convening partners.</li> <li>• <b>Gather baseline data about current oral health issues and state actions.</b> The National Institute of Health’s National Institute of Dental and Craniofacial Research publishes <a href="#">state-based information</a> about the percentage of residents who receive fluoridated water, as well as statistics about dental caries and national information on <a href="#">dental sealants for children</a> and <a href="#">adolescents</a>. CDC provides <a href="#">oral health maps</a> and <a href="#">synopses of state and territorial dental health programs</a>, which include state information about oral health directors, sealant coordinators, sealant data, fluoridation levels, trends, and program features. Oral health maps summarize interventions.</li> </ul>
Implementation	<ul style="list-style-type: none"> <li>• <b>Adopt coordinated evidence-based interventions that respond to specific challenges and needs.</b> Stakeholders can utilize The Community Guide and other resources to assess and adopt effective approaches. Resources such as the 2009 CDC-sponsored <a href="#">work group</a> recommendations for school-based dental sealant programs, as well as the Association of State and Territorial Health Directors’ best practices approach reports for <a href="#">school-based dental sealant programs</a> and <a href="#">community fluoridation programs</a> can provide a blueprint for adopting effective programs.</li> <li>• <b>Publish implementation manuals for school-based dental sealant programs.</b></li> <li>• <b>Align efforts with existing initiatives and state oral health plans.</b> States with oral health plans (see <a href="#">CDC database</a>) can ensure that sealant and fluoridation initiatives align with and support broader statewide activities.</li> </ul>
Program Eval.	<ul style="list-style-type: none"> <li>• <b>Evaluate outcomes and improve programs.</b> Refining interventions to respond to community needs is essential. Program evaluations can be used to report on performance benchmarks, measure outcomes, and identify areas for improvement.</li> </ul>

**State Experiences.** Several states, including [Washington](#), [Ohio](#), and [Minnesota](#), publish dental sealant program manuals or guidelines that help local jurisdictions and coalitions assess needs and engage stakeholders in advisory boards or coalitions. The [Washington state code](#) allows dentists, dental hygienists, and registered dental assistants to participate in school-based dental sealant programs if they follow state Department of Health guidelines. The Department of Health’s “[Washington State School Based Sealant and Program Varnish Program Guidelines](#)” define state legislative requirements and provide steps for assessing and targeting at-risk populations, partnering with local jurisdictions and oral health coalitions, and training dental staff. The **Ohio** Department of Health’s Program Manual establishes performance benchmarks and details reporting requirements for grantee agencies.

States can also integrate fluoridation and sealant programs into their overall state oral health plan. As **Illinois** is one of eight states with mandatory fluoridation laws, more than 93 percent of its residents receive fluoridated drinking water. Community water fluoridation and the dental sealant program are included in the state’s [Oral Health Plan](#). **Florida’s** State Oral Health Improvement Plan recommends improved access to community and school-based prevention programs. Strategies for achieving this goal include increasing community fluoridation and expanding the school-based dental sealant program.

**Additional Resources and Links**

An electronic version of this and other action sheets, with links to the resources listed in this document, is available at <http://www.astho.org/Programs/Evidence-Based-Public-Health/>.

- ASTHO Fact Sheet, [Interventions to Promote Oral Health](#)
- ASTHO [Oral Health Position Statement](#), 2012