



# Dental Public Health Activities & Practices

**Practice Number:** 24008  
**Submitted By:** Partners for a Healthier Community, Inc.  
**Submission Date:** November 2009  
**Last Updated:** November 2009

## SECTION I: PRACTICE OVERVIEW

### Name of the Dental Public Health Activity:

**BEST (Bringing Early Education, Screening and Treatment) Oral Health Program**

### Public Health Functions:

- Assurance – Oral Health Communications
- Assurance – Building Linkages and Partnerships for Interventions
- Assurance – Building State and Community Capacity for Interventions
- Assurance – Access to Care and Health System Interventions

### Healthy People 2010 Objectives:

- 21-1 Reduce dental caries experience in children
- 21-2 Reduce untreated dental decay in children and adults
- 21-10 Increase utilization of oral health system
- 21-12 Increase preventive dental services for low-income children and adolescents

### State:

Massachusetts

### Federal Region:

East  
Region 1

### Key Words for Searches:

Oral health, access to care, pre-school children, early childhood caries, oral health education, prevention

### Abstract:

The BEST (Bringing Early Education Screening and Treatment) Oral Health Program, funded in FY2007 and FY2008, is a three-year research-based demonstration program that reaches children under the age of five and provides oral health education, screenings, preventive measures, and treatment to children enrolled in early childhood education programs. The program is based in Hampden County, Massachusetts. The BEST Program uses a community approach to provide early intervention for infants and toddlers with high risks (e.g., low income and racial/ethnic groups experiencing barriers to accessing dental care<sup>1</sup>). The program recognizes that Early Education and Care (EEC) programs are essential entry points to obtain prevention and aims to deliver oral health services by “piggy-backing” onto basic services and within the infrastructure of existing EEC programs. EEC centers will serve as dental homes to deliver comprehensive oral health education and preventive/restorative treatment services. The BEST Program trains EEC childcare staff to provide oral health education using an adapted version of the Open Wide model.<sup>2</sup> The program also provides portable dentistry onsite at EEC settings (delivers prevention/treatment services using portable dental equipment). As of July 2009, the BEST Program has reached 54 organizations, trained 1,055 EEC site staff and Family-Based Care Providers, and provided oral screening and dental prevention/treatment services to 4,678 children in Hampden County. Post-tests show preschool staff increased their knowledge in oral health. Oral health related quality of life data was analyzed and results show improvements in quality of life scores in children with early childhood caries following treatment. The start-up operating cost for the program is approximately \$330,000, which includes conducting a pilot test targeting a limited number of preschool programs (\$25,000), hiring a Community Coordinator (\$50,000), and delivering dental services (\$255,000). Up to 80 percent of the operating cost may be offset by revenue generated in the subsequent years when the program operates at full scale and bills insurance plans for services.<sup>3</sup>

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## SECTION II: PRACTICE DESCRIPTION

### History of the Practice:

Partners for a Healthier Community (PHC) is a non-profit organization committed to building a healthier Springfield (a city located in Hampden County, Massachusetts) through civic leadership, partnership and advocacy. In the spring of 2003, PHC set oral health as a priority issue. By March of 2004, a public health initiative was launched to improve the oral health of preschool children in Springfield. In partnership with Tufts University School Dental Medicine's Community Dental Program, PHC applied for a \$25,000 grant for a community program to conduct a pilot project targeting a limited number of preschool classrooms.

The goals of the **Springfield Open-Wide Oral Health Pilot Project** (conducted 7/1/04 - 6/30/05) were to promote better oral health practices among young children; train childcare staff to educate children and caregivers in oral health; and promote positive change in children, their families and childcare organizations. The project aimed to reduce tooth decay (dental caries). The project worked with five childcare organizations, trained more than 180 preschool staff members in the *Open Wide* oral health curriculum, and enrolled 119 preschool children and their families. Enrolled children brushed their teeth daily in the classroom, were given oral health screenings, and received fluoride varnish treatment. The participating childcare organizations changed their organizational operations and policies, and integrated the pilot's oral health skills, competencies and practices into their programs.

The lessons and experience of the pilot project guided the development of a full program to reach more children. PHC, with the help of State Senator Gale Candaras, was able to secure additional funding of \$1 million to fund the first two years (FY07 and FY08) of a three-year research-based demonstration program, called the **BEST (Bringing Early Education, Screening and Treatment) Oral Health Program** to improve the oral health of infants, toddlers and preschool children.

### Justification of the Practice:

The PHC oral health initiative is based on the children's high dental needs:

- In 2002, for children covered by MassHealth (the state's Medicaid program), only one out of three children living in Hampden County saw a dentist. The following year, access declined to one out of five. Hampden County, includes the City of Springfield, has been classified as a Dental Provider Shortage Area (DPSA). In 2002, Hampden County had 86 dental providers (in community health dental clinics and private practices) and only 35 of them were MassHealth providers. At that time, 66,601 children, ages 0 to 20, were enrolled in MassHealth and eligible for dental benefits. In 2007, utilization remained low with only 17 percent of MassHealth children receiving a comprehensive oral examination.
- A significant proportion of Massachusetts' children suffer from dental caries, and many of the youngest children start school with dental disease. More than 25 percent of kindergarten children, 40 percent of 3rd graders, and 33 percent of 6th graders have experienced dental caries. Hampden County continues to rank as 1 of 4 counties with the highest unmet need for dental care for children from low income and racial/ethnic populations.<sup>4</sup> Preschool children in Springfield experienced dental caries at a higher rate than the State average (30 percent vs. 15 percent) and have experienced more dental pain (14 percent vs. 4 percent).
- A January 2008 study by Catalyst Institute<sup>4</sup> showed that Hampden County has one of the highest rates of untreated dental decay among kindergarten children in Massachusetts. Data from the pilot project and the BEST demonstration program documented that about 40 percent of preschool children screened have dental decay and require treatment, twice the national average. In addition, almost half of all children screened (46 percent) did not have a family dentist.

### Inputs, Activities, Outputs and Outcomes of the Practice:

The BEST Oral Health Program is an oral health initiative implemented in Hampden County of Massachusetts from FY2007 to FY2009.

## Program Goals, Objectives and Design

The following goals and performance indicators guided the implementation of the BEST Oral Health Program.

### Program Goals:

- Educate care givers.
- Offer preventive interventions.
- Connect children to comprehensive dental services.

### Performance Indicators:

- Increased percentage of infants breastfed; reduced percentage of infants on low cariogenic diets;
- Increased percentage of parent and caregivers who know how to decrease caries risk;
- Increased percentage of pediatric visits that include an oral health screening;
- Increased percentage of children screened for nutritional risk to their oral health;
- Increased percentage of children receiving fluoride treatments;
- Increased percentage of children receiving sealants, and
- Increased percentage of children entering kindergarten with good oral health (caries free or with no untreated caries).

The BEST Program uses a community approach to provide early intervention for infants, toddlers, and preschoolers with high risk for tooth decay. This approach addresses the system-related, personal, and situational barriers to accessing dental care<sup>1</sup> encountered by low-income and racial/ethnic minority groups. The BEST Program recognizes that Early Education and Care (EEC) programs are essential entry points for infants, toddlers and preschool children to obtain preventive dental care. The program utilizes multi-level strategies to provide education, screening, and prevention/treatment services onsite at EEC centers. With oral health services designed to “piggy-back” onto the basic services and within the infrastructure of existing EEC programs. The BEST program integrates oral health intervention into EEC programs. The EEC centers then serve as dental homes for the children. The program uses research-informed models such as *Open Wide* to train EEC staff to provide oral health education. The program also utilizes portable dental equipment to deliver screenings, evidenced-based prevention (fluoride varnish and dental sealants), and restorative dental treatment onsite in EEC settings.

## Partners for a Healthier Community (PHC) – Program Administrator

PHC administers the BEST Oral Health Program. In fall 2003, the PHC, Springfield’s [Cherish Every Child Initiative](#), and Springfield Department of Health and Human Services (DHHS) established a Preschool Oral Health Taskforce to assess, define and advance the BEST Program. For the BEST Program, PHC hosted quarterly taskforce meeting, developed an action framework, surveyed the urgent care needs in preschool centers, conducted key informant interviews, researched best practices, provided professional development, distributed toothbrushing supplies, developed a toolbox, and worked with state/local legislators to promote oral health and policy changes.

## The Taskforce – Building a Coalition of Community Stakeholders

The Preschool Oral Health Taskforce (OHTF) is made up of a multidisciplinary team, with community stakeholder representations and expertise needed to successfully develop and implement a community program to improve early childhood oral health. OHTF members include: parents, city and state officials, private and public dental health professionals, preschool professionals, community advocates, academics, and local foundations. The taskforce helped the BEST Program access more resources, ensure a broader view in implementation, reduce replication of services, and carry momentum and energy through each process. The OHTF guides decision-making and establishes workgroups to oversee and implement specific BEST Program tasks. Quarterly meetings are scheduled, convening roughly 60 members, to brainstorm, make decisions, troubleshoot, and be accountable.

The Task Force adopted ten values to guide research for the program.<sup>5</sup>

1. Policies and programs should be based on mutual respect and justice for participants and free from discrimination or bias.
2. Participants have a right to self-determination.
3. Community has a right to be involved at every level of decision-making.
4. Services will be provided only with informed consent.
5. Selecting vulnerable groups or individuals for testing or to serve the interests of the program will be repudiated.

6. Oral health education provided will be sensitive to diverse cultural and environmental conditions of families.
7. Project benefits go first to community members and to the enhancement of community resources.
8. Community members should participate in the analysis, interpretation and input of data.
9. Partnerships with researchers and community members should be established with a view to last beyond the life of the project.
10. Community members should be encouraged to initiate their own research to address the needs that they identify.

### Program Staffing and Partners

The BEST Program staff and partners included the following:

- Tufts Community Dental Program (Tufts) – The program at Tufts University School of Dental Medicine is a preventive dentistry program utilizing registered dental hygienists to provide oral screening, education, cleanings, sealants, fluoride treatments, and referral for vulnerable populations statewide. A team of dental hygienists travels throughout the state to provide services with portable dental equipment. Tufts dental hygienists provide oral health education to all BEST enrolled preschool children and deliver preventive services at the preschools to enrolled children with parental consent.
- Commonwealth Mobile Oral Health Services (CMOHS) – CMOHS, based in Massachusetts, has been providing portable oral health services to the Head Start programs, public school systems and special school adolescent populations, as well as to populations served by the Department of Social Services [DSS], Department of Youth Services [DYS], and Department of Mental Health [DMH] programs for over twenty years. CMOHS provides comprehensive dental services to BEST enrolled preschoolers.
- Boston University Goldman School of Dental Medicine (BU) – BU supports program evaluation.
- Springfield College School of Social Work (SCSSW) – SCSSW supports qualitative program analysis for the BEST Program to address how to develop a preschool oral health program and lessons learned.
- Preschool Enrichment Team (PET) – PET (a childcare resource, referral, and training agency) organizes Open Wide training, assists in scheduling trainings, and serves as the BEST Oral Health Resource Distribution Center, and orders/delivers oral health supplies for classroom education and toothbrushing.

### Enrollment Process and Eligibility

The *Enrollment Process* assists sites with informing families about the BEST Program and helps children to receive on-site dental services. An enrollment package includes a BEST brochure, consent forms, an oral health quality of life (QOL) survey, a notice of privacy practices, a parent letter explaining dental services offered, and nine anticipatory guidance cards on different oral health topics (e.g., baby teeth, oral hygiene, medications, and dental visits).

For a new site, BEST staff introduces the program to parents/caregivers at drop-off and pick-up times at the preschool and assists in filling out consent forms. Once a site has participated, the BEST enrollment package is provided with other documents during regular enrollment of children for preschool. After onsite dental care services begin, parents can enroll their children any time. All preschool children (age birth to five years) are eligible regardless of income. Most of the preschool sites have 85 percent or more MassHealth (Medicaid) enrolled children.

### Professional Development Training

The only requirement for EEC sites (preschools) to participate in the BEST Program is to have its site staff attend a two-hour professional development training (continuing education credit is provided). *Open Wide*, an oral health training curriculum appropriate for non-dental health and human service providers, was chosen for staff training. A classroom toothbrushing model is also presented during the training. Training EEC staff to provide oral health education in their programs promotes integration and sustainability. Training is also provided to Family-Based Care Providers.

### Tufts Dental Services – Education and Preventive Services

Once staff training is completed, a full-time coordinator works with BEST sites to schedule oral health education, screenings, preventive services, and comprehensive dental treatment.

The Tufts Community Dental Program provides oral health education to all preschool children enrolled in the BEST Program. It is scheduled prior to the oral screenings and includes a “story book” format adapted from “Nick and Kathy’s First Trip to the Dentist” which prepares preschoolers for their first dental experience (from the Arizona Department of Health Services, Office of Oral Health). Following the educational component, the Tufts dental hygienist completes preventive services (oral screening, cleanings, dental sealants, and fluoride varnish treatments) for all children ages 6 months to 5 years who have parental consent for dental care through the portable dental program. A letter is sent home to the parents/guardians reporting their child’s oral health status and services provided. Referrals for other dental or specialty services are made when necessary.

The BEST Program also offers onsite support in implementing classroom toothbrushing, provides age appropriate toothbrushes, toothpaste, and storage racks for all children enrolled in sites participating in BEST.

CMOHS Clinical Dental Services – Comprehensive Dental Treatment

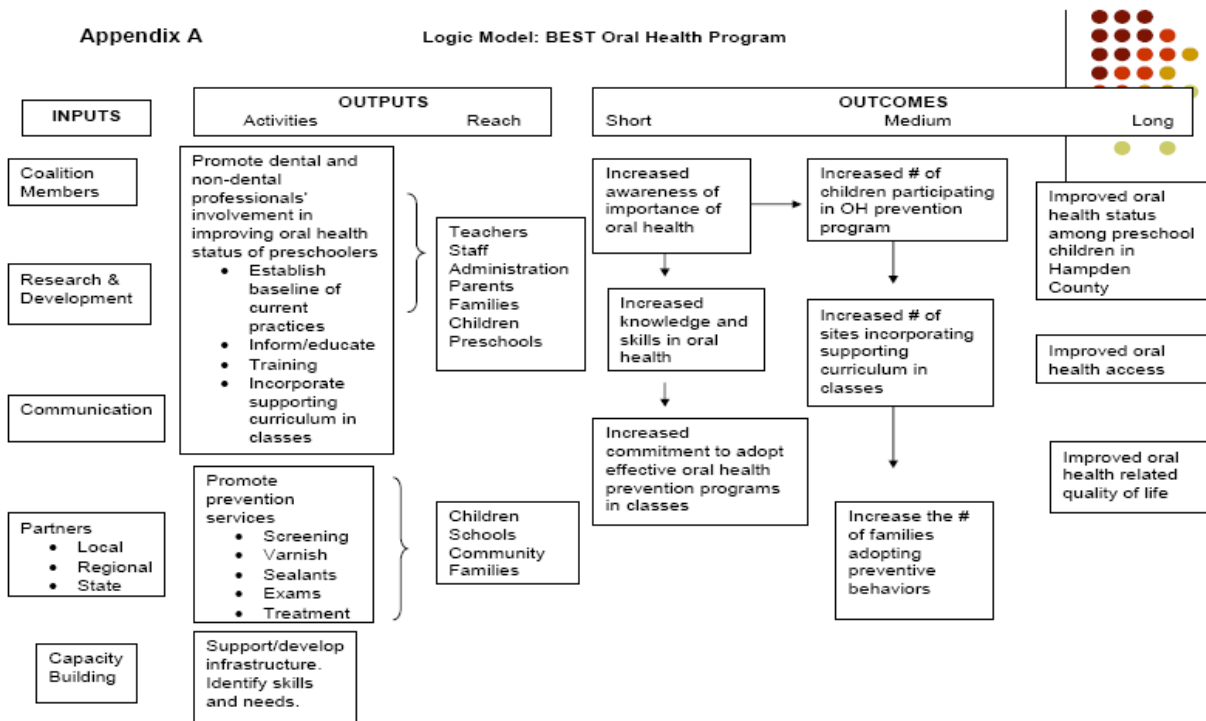
The coordinator schedules clinic time with the preschools to deliver comprehensive dental treatment. Commonwealth Mobile Oral Health Services employs eleven dentists who work across the state with portable dental and x-ray equipment to provide onsite dental services. CMOHS does not employ dental hygienists. A team of one dentist and one assistant is scheduled to provide services for approximately six hours each clinic day and treats a minimum of twelve children. Clinic schedules may include several small sites in a day or multiple days for a large site. CMOHS provides comprehensive dental treatment that includes:

- Preventive services: Examination/x-rays; prophylaxis (cleaning); fluoride varnish treatment; and dental sealants.
- Restorative services: Fillings; crowns (acrylic and stainless steel); partial removable appliance (acrylic “flipper”); and root canal therapy.
- Emergency care / extraction

CMOHS provides referral to appropriate dental facility/hospital (OR) if needed. Children who do not receive dental services onsite or need specialty services are referred to local dental providers. A letter is sent home to parents explaining treatment provided.

Logic Model

The below logic model shows the inputs, outputs and outcomes of the BEST Program.



## Milestones

The milestones of the PHC oral health initiative and the BEST Oral Health program include:

- *Spring 2003* – PHC prioritized oral health need in Springfield, Hampden County
- *July 2004* – Published a concept paper describing a full-scale public health approach to preventing dental caries in preschool children.
- *May - September 2004* – Engaged consumers to explore solutions to improve oral health and quality of life. Reviewed findings of community need assessment and research. Decided to target preschool children and their families for the oral health initiative.
- *September 2004* – Completed a program proposal and strategic plan to guide the new effort with five-year goals and objectives.
- *July 2005* – A pilot project and model was developed to assess the likelihood of meeting goals of the program. The pilot project was intended to gain the support of EEC partners to implement a multifaceted prevention program.
- *2006* – At the end of the pilot, based on family risk and oral risk assessments of babies, toddlers and preschoolers, and failure to be able to connect these children to a dental home, portable dental services was added to the model.
- *2007* – Based on the pilot and the resulting collaboration among Tufts, BU, PHC, SCSSW, and CMOHS, the legislature funded a 3-year demonstration program – the BEST Oral Health Program - to move the pilot to a full scale program.
- *2008* – A new partner was added to the BEST Program, Preschool Enrichment Team (PET), to leverage resources by warehousing and distributing oral health education materials and supplies.
- *2009* – The BEST Program developed a single and unified dental care system and piloted the model in the Springfield Public Schools.

## Outputs

Program services delivered (include the pilot project and the expanded BEST Oral Health Program) from July 2004 through July 2009:

Cumulative BEST Services Provided						
Dimensions Fiscal Year Ending	7/1/04- 6/30/05 Pilot Year	7/1/05- 6/30/06 Expansion	7/1/06- 6/30/07 Expansion	7/1/07- 6/30/08 Expansion	7/1/08- 7/30/09 Expansion	TOTAL
Counties	1	0	1	0	3	5
Organizations	5	7	17	7	18	54
Family-Based Care Providers (FBCP) trained	0	0	101	2	12	115
EEC site staff trained	180	265	220	162	160	940
Classrooms implementing toothbrushing (children participating)	7	88	43	88	120	346 (4,678)
Students enrolled	119	1,329	1,236	806	1,188	4,678
Fluoride varnish treatments	78	208	828	995	3,642	5,751
Prophylaxis treatments	69	70	327	797	2,077	3,340
Sealants placed	0	0	0	0	1,346	1,346
Composite fillings	0	0	0	183	142	325

## Program Evaluation

The BEST Oral Health Program has implemented extensive evaluation of the three main outcomes: (1) improved oral health status, (2) increased oral health access, and (3) improved oral health quality of life. The survey tool was developed by the Boston University Goldman School of Dental Medicine and is valid and reliable. Evaluation data included: (1) BEST Open Wide training pre/post-tests to evaluate knowledge gained at the time of training and knowledge retained one year after training, (2) clinical data provided from services delivered by Tufts and CMOHS, and (3) oral health Quality of Life data to show pre/post change. The final evaluation report has been completed and is available on the PHC website, [www.partnersforahealthiercommunity.org](http://www.partnersforahealthiercommunity.org).

## Outcomes

The BEST Program has achieved the following outcomes:

- The BEST Program has developed a unified dental care system which uses a single approach across 84 preschool centers, a standardized enrollment and consent process shared by five separate organizations, and a replicable method for engaging families and providing preventive and restorative oral health care to preschool children.
- The program has provided 47 percent (4,678) of Hampden County's preschool children with preventive dental care.
- For BEST enrolled children, overall oral health quality of life was enhanced from baseline, measured by crying, anger/worry, eating, attendance at school, and pain.
- Overall 50 percent of children enrolled in BEST showed good or improved oral health at their follow-up dental visit. Oral health status measures for each child include: treatment urgency ( $p < 0.05$ ), oral hygiene assessment ( $p < 0.05$ ), use of sealants ( $p < 0.05$ ), decrease in white spot lesions ( $p < 0.05$ ).
- Among the 1,055 EEC site staff and Family-Based Care Providers trained, pre- and post-tests show increased knowledge in preschool staff from oral health trainings ( $p < 0.05$ ).
- A large demonstration program has documented a community approach and model practice to improve the oral health of high-risk preschool children and address barriers to dental care (shortage of general/pediatric dentists, lack of Medicaid dental providers, children are not seen before the age of 3, transportation, lost time from work, and cultural beliefs).

## **Budget Estimates and Formulas of the Practice:**

### Financing Strategies

Program budget was based on the ability to provide full comprehensive dental services (education, prevention, treatment, and referrals) for approximately 5,000 preschool children (each child being seen twice in a 12 month period). The budget also funds 24 two-hour professional development trainings for EEC staff members, and building community capacity through coalition and policy work.

The root of the BEST Program's financing strategies is to coordinate and integrate health care, dental care, early education and care, and community building and development. Below are financing strategies that were used throughout the initial five-year period of the BEST Program:

- *Align financing strategies with long-term solutions to support ongoing programs and services:* Medicaid reimbursement for dental services contributes revenue to sustain programs and services. The Department of Early Education and Care provided funding to creation of an effective approach to improve oral health of vulnerable children. The mobile dentistry model minimizes capital cost and overhead of fixed facilities. Embedding the oral health program into established programs leverage resources.
- *Incorporate multiple funding sources that cut across traditionally separate programs and services:* The BEST Program combined public- and private-sector resources in innovative ways. Private-sector funding supported short-term strategies (the pilot project) that require flexibility and responsiveness. Public- and third-party funding is important for long-term strategies to support program expansion.
- *Leverage other resources and assure a return on investment:* A positive return of investment for the BEST Program needs to demonstrate improved health outcomes and financial success. Pooling resources and distributing them through a collaborative process involving community leaders and stakeholders demonstrated the broad-base approach of the BEST Program. This helps gain commitment to support program services and obtain financial support from the private- and public-sectors.

### Program Revenue and Expenses

These budget details approximate revenue and expenses for the program:

SUPPORT AND REVENUE	TOTAL
Private Sector	\$ 25,000
MassHealth (Medicaid)	\$ 255,000
Other Support (TBD)	\$ 0
<i>Total Support and Revenue</i>	<i>\$ 280,000</i>

EXPENSES	TOTAL
Pilot test (to apply a model & target a limited number of preschool programs)	\$ 25,000
<ul style="list-style-type: none"> <li>• Part time coordinator, marketing materials &amp; professional development incentives</li> <li>• Oral health education and orient early education and care staff</li> <li>• On-site oral health screening and risk assessments</li> <li>• Testing of portable dentistry to deliver comprehensive services</li> </ul>	
Salary of a Community Coordinator (to provide systems development)	\$ 50,000
<ul style="list-style-type: none"> <li>• Facilitate citywide or county-wide services</li> <li>• Professional development for early education and care programs</li> <li>• Assist in outreach to families</li> <li>• Assist in site development and preparation</li> </ul>	
Portable dental clinic services (preventive/treatment services based on a simple logic model and business plan)	\$ 255,555
<ul style="list-style-type: none"> <li>• \$255,555/year expense</li> <li>• \$255,555 expense/32 school weeks = \$8,000 per week expense</li> <li>• \$8,000wk/5days = \$1,600 expense per day</li> <li>• \$1,600 expense per day / 5 school hours per day = \$320 per school hour expense</li> <li>• Require 10 patient visits with revenue of \$160 per visit for break even</li> </ul>	
Total Expenses	\$ 330,555
NET DIFFERENCE	\$ ~ 50,000

### Lessons Learned and/or Plans for Improvement:

1. *Leadership is key.* The leadership of the BEST Oral Health Program (the taskforce) represented the community and included outside experts.
2. *Keep a family-centered philosophy.* Stay focused on the children and families, as the principal beneficiaries, at all stages of the project.
3. *Teacher enthusiasm is important for the BEST program.* Be attentive and timely to the individuals doing the actual implementation. Take advantage of ECC teachers' increased enthusiasm immediately after their *Open Wide* training and quickly provide them with tools to take action.
4. *Understand the Family-Based Childcare Providers and their systems of care.* Family-Based Providers serve between five and ten children on average. Providers in small centers tend to be geographically isolated and less easy to engage in training and in arranging oral health services than those in larger centers. When small site providers are connected through a network, they are more interested to engage in the BEST Program.
5. *Formative evaluation provides added benefits.* Formative evaluation is conducted to provide program staff evaluative information useful in improving the program. Having process and outcome evaluation in place is helpful to understand the program's progress and explain results.

### Available Information Resources:

1. The [Partners for Healthier Community, Inc. Website](#) provides more information on the [BEST Oral Health Program](#):
  - [BEST Videos](#)
  - [BEST How To Manual](#) (PDF 4 MB)
  - [BEST Resource Guide](#) (PDF 49 MB)
  - [BEST Training Overview](#) (PDF 1 MB)
2. The following websites offer information and curricula cited in the BEST Resource Guide:
  - [Open Wide](#)
  - [Head Start Dental Health Curriculum](#)
  - [Cavity Free Kids](#)
  - [Lakeshore Learning Materials](#)
  - [MO Healthy Smiles](#)
3. Professional Development Tools for BEST Open Wide Training:
  - BEST Open Wide Preschool Power Point Training
  - Pre-test/Post-test survey given to training participants
  - Training Evaluation Form



- Oral health abstracts/ articles on ADA fluoride recommendations, fluoride varnish use for preschool age children, CDC sealant hand out, Deamonte Driver story, classroom brushing handout
4. BEST Oral Health Program Forms:
    - BEST Oral Health Enrollment Package for Clinical Services
      - Includes Consent Form, Quality of Life Form (QOL), Notice of Privacy Practices, Anticipatory Guidance Cards, BEST Oral Health Brochure, and Parent Letter.
    - Clinical Services Data Forms
      - Includes an Encounter Form (record dental services for billing) and a Parent Letter (report on the services provided and referral recommendations).
  5. BEST Oral Health Toolbox:
    - A toolbox is provided to each ECC site (after its staff completes the BEST Open Wide training) to implement oral health education and classroom toothbrushing. The toolbox is a plastic container with oral health books, a video, and puppets for toothbrushing instruction and role playing. Toothbrushes, toothpaste and storage racks are also provided.

## SECTION III: PRACTICE EVALUATION INFORMATION

### Impact/Effectiveness

*How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?*

The effectiveness of the BEST Oral Health Program is demonstrated by:

- The program reached 47 percent of Hampden County's preschool children and provided 4,678 children with preventive dental care.
- Clinical dental services (preventive and restorative care) for preschool children in Hampden County have increased to over 200 percent during the past four years.
- For BEST enrolled children, overall oral health quality of life of BEST enrolled children was enhanced from baseline as measured by crying, anger/worry, eating, attendance at school, and pain.
- Overall 50 percent of children enrolled in BEST showed good or improved oral health at their follow-up dental visit. Oral health status measures for each child include: treatment urgency ( $p < 0.05$ ), oral hygiene assessment ( $p < 0.05$ ), use of sealants ( $p < 0.05$ ), decrease in white spot lesions ( $p < 0.05$ ).
- Among the 1,055 EEC site staff and Family-Based Care Providers trained using the Open Wide curriculum, pre- and post-tests show increased oral health knowledge in preschool staff from oral health trainings ( $p < 0.05$ ).

### Efficiency

*How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.*

For the efficiency of the BEST Program is demonstrated by the following:

- The cost per year to provide classroom oral health education, classroom toothbrushing, and staff training for one preschool classroom of 20 children is approximately \$128. This cost is approximately the same as one child receiving 1-2 dental fillings.
- Revenue from 70-80 percent of the enrolled children with insurance generates revenue to cover program costs for the remaining 20–30 percent of enrolled children without insurance.

### Demonstrated Sustainability

*How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?*

The BEST Program preventive and clinical dental services will be sustained through key relationships with partners built over the years:

- Memoranda of Understanding (MOU) have been developed and signed with individual preschool organizations and public schools that would enable them to work directly with Tufts Community Dental Program and the Commonwealth Mobile Oral Health Services to continue services through their own coordination.
- Preschool Enrichment Team (PET), the regional resource organization, will provide professional development and educational supplies for preschools in the region.

### Collaboration/Integration

*How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?*

The BEST Program has promoted collaboration and integration including the following:

- The Preschool Oral Health Taskforce (OHTF) was established to guide the BEST Program and build community collaboration with parents, city and state officials, private and public dental

health professionals, preschool professionals, community advocates, academics, and local foundations.

- The BEST Program aimed to integrate oral health education, prevention and treatment services into EEC programs.
- In collaboration, the BEST Program/Partners for a Healthier Community (PHC), DentaQuest (formerly Oral Health Foundation), Massachusetts Dental Society, Massachusetts Dental Hygienist Association, Delta Dental of Massachusetts, Baystate Health Continuing Education, and Catalyst Institute held the first statewide oral health conference called “Better Oral Health for Massachusetts.”
- A partnership between PHC, Springfield Technical Community College, and Western Massachusetts Hospital secured funding and built a five-chair dental clinic in one of the most vulnerable neighborhoods in Springfield. The clinic has increased community capacity to provide dental care to local families and individuals with special needs.
- A partnership with Frameworks Institute enabled the training of over 50 people in the Springfield area to be “spokespersons” for oral health.

### **Objectives/Rationale**

*How has the practice addressed HP 2010 objectives, met the National Call to Action to Promote Oral Health, and/or built basic infrastructure and capacity for state/territorial/community oral health programs?*

The BEST Oral Health Program adopted the goals of Surgeon General’s Call to Action to improve quality of life and eliminate health disparities. The BEST Program also addresses 2010 oral health objectives to reduce dental caries in primary teeth, reduce untreated dental decay in primary teeth, increase annual dental visits, and increase annual preventive dental services for low-income youths.

### **Extent of Use Among States**

*Describe the extent of the practice or aspects of the practice used in other states.*

To our knowledge, there are no other programs in the country that offer onsite, comprehensive dental services to the preschool population other than Head Start programs. In 2008, the *Missouri Smiles Kindergarten* curriculum was added to the BEST classroom curriculum.

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### **REFERENCES:**

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