



# Public Health Project/Activity Descriptive Report Form

Please provide a detailed description of your **successful dental public health project/activity** by fully completing this form. Expand the submission form as needed but within any limitations noted. Please return completed form to: [lcofano@astdd.org](mailto:lcofano@astdd.org)

**NOTE: Please use Arial 10 pt. font.**

**CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS**

**Name:** Dr. Teresita Ladrillo / Dr. Justine Jimenez  
**Title:** Bureau of Oral Health Bureau Chief / Senior Public Health Dentist  
**Agency/Organization:** City of Houston, Houston Health Department, Bureau of Oral Health  
**Address:** 8000 N. Stadium Dr., Houston, TX 77054  
**Phone:** (832) 395-0054  
**Email Address:** [Teresita.Ladrillo@houstontx.gov](mailto:Teresita.Ladrillo@houstontx.gov) / [Justine.Jimenez@houstontx.gov](mailto:Justine.Jimenez@houstontx.gov)

**PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM**

**Name:** Ms. Lisa Foster  
**Title:** Project Saving Smiles, School Liaison  
**Agency/Organization:** City of Houston, Houston Health Department, Bureau of Oral Health  
**Address:** 8000 N. Stadium Dr., Houston, TX 77054  
**Phone:** (832) 395-0054  
**Email Address:** [Lisa.Foster@houstontx.gov](mailto:Lisa.Foster@houstontx.gov)

**SECTION I: ACTIVITY OVERVIEW**

**Title of the dental public health activity:**

**Project Saving Smiles**

**Public Health Functions\* and the 10 Essential Public Health Services to Promote Oral Health:**

Check one or more categories related to the activity.

"X"	<b>Assessment</b>
X	1. Assess oral health status and implement an oral health surveillance system.
X	2. Analyze determinants of oral health and respond to health hazards in the community
X	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
<b>Policy Development</b>	
X	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
	5. Develop and implement policies and systematic plans that support state and community oral health efforts
<b>Assurance</b>	
	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
X	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
	8. Assure an adequate and competent public and private oral health workforce
X	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
	10. Conduct and review research for new insights and innovative solutions to oral health problems

**[\\*ASTDD Guidelines for State and Territorial Oral Health Programs that includes 10 Essential Public Health Services to Promote Oral Health](#)**

**Healthy People 2030 Objectives:** Please list HP 2030 objectives related to the activity described in this submission. If there are any state-level objectives the activity addresses please include those as well.

- OH-1 Reduce the proportion of children and adolescents with lifetime tooth decay
- OH-2 Reduce the proportion of children and adolescents with active and untreated tooth decay
- OH-8 Increase use of the oral health care system
- OH-9 Increase the proportion of low-income youth who have a preventive dental visit
- OH-10 Increase the proportion of children and adolescents who have dental sealants on 1 or more molars
- NWS-10 Reduce consumption of added sugars by people aged 2 years and over

**Provide 3-5 Key Words (e.g. fluoride, sealants, access to care, coalitions, policy, Medicaid, etc.) These will assist those looking for information on this topic:**

Access to Care: Children Services, Access to Care: School-Based Oral Health, Prevention: Children Oral Health, Prevention: Sealants, Fluoride

**Executive Summary: Complete after Section II: Detailed Activity Description. Please limit to 300 words in one or two paragraphs.**

Provide a brief description of the dental public health activity. Include information on: (1) what is being done; (2) who is doing it and why; (3) associated costs; (4) outcomes achieved (5) lessons learned, both positive and negative.

Project Saving Smiles (PSS) is a preventive strategy initiated by the Houston Health Department in 2008 in order to reduce the prevalence of tooth decay in underserved children and remove barriers to learning. The 2001 Dental Needs Assessment in Harris County revealed 45.9% of 2nd graders had untreated decay. It is known that children who suffer from oral health problems cannot learn well and miss days from school. According to the 2000 Surgeon General's Report, more than 51 million school hours are lost each year due to dental-related illness. Additionally, children who experience pain from tooth problems are likely to be distracted and unable to concentrate on their school work.

This school-linked project provides dental screenings, dental sealants, fluoride varnish, and oral health education free of charge targeting Houston's at-risk 2nd graders who are enrolled in schools with 70% or more students on the Free and Reduced Lunch Program. Goals for PSS are: 1) reduce caries and 2) decrease school absences due to common oral health diseases. Since its implementation in school year (SY) 2008-2009 until March 2020 (PSS missions were stopped due to the COVID-19 pandemic) PSS has provided 74,758 dental screenings, 235,474 dental sealants, 73,819 fluoride varnishes, and oral health education free of charge to second graders enrolled in a free or reduced lunch program across Houston. The average cost per child for these services is \$137.55. The estimated value of the services provided is \$ 9,776,545.97.

Through the years, PSS has collaborated with the Texas Department of State Health Services, higher academic institutions, school districts, private industries, and various non-profit organizations. Partners share in the planning, resources, and implementation of PSS. The unique model of PSS processes has resulted in a 67% increase in the number of children served during the first year with three, five-day missions. In the following years, it was proven that the program has provided access to preventive services to a large number of at-risk second graders.

## **SECTION II: DETAILED ACTIVITY DESCRIPTION**

Provide detailed narrative about the dental public health activity using the headings provided and answering the questions. Include specifics to help readers understand what you are doing and how it's being done. References and links to information may be included.

**\*\*Complete using Arial 10 pt.**

### **Rationale and History of the Activity:**

1. What were the key issues that led to the initiation of this activity?

The 2001 Dental Needs Assessment in Harris County revealed 45.9% of 2nd graders had untreated decay. The 1999-2004 National Health and Nutrition Examination Survey (NHANES), a significant increase in primary dental caries was found. It showed that 51.17% of children 6-11 years old have dental caries on their primary teeth. Black and Hispanic children and those living in families with lower incomes have more decay. (<https://www.nidcr.nih.gov/research/data-statistics/dental-caries/children>). Presence of caries in primary teeth indicates a higher risk for caries in the incoming permanent teeth. It is also known that children who suffer from oral health problems cannot learn well and miss days from school. According to the 2000 Surgeon General's Report, more than 51 million school hours are lost each year due to dental-related illness. Additionally, children who experience pain from tooth problems are likely to be distracted and unable to concentrate on their school work. Further, around that time there are a lot of children ending in the Emergency Department due to non-traumatic dental problems that could have been prevented.

2. What rationale/evidence (may be anecdotal) did you use to support the implementation of this activity?

Please see above.

3. What month and year did the activity begin and what milestones have occurred along the way? (May include a timeline.)

- SY 2008-2009 - Project Saving Smiles was initiated with three (3) missions for the first year and with Houston Independent School District (HISD) as the first ISD to participate
- SY 2016-2017 - Project Saving Smiles collaborates with up to 12 school districts (with Charter Schools being categorized as ISD) averaging nine (9) missions for the school year.
- SY 2019-2020 - Project Saving Smiles regular missions were abruptly stopped in March 2020 due to the Covid-19 Pandemic. PSS process was modified. Children were not bussed to the site, rather parents can bring the student to the city clinic for the screening and preventive services. In response to an increase need in dental care and increase incidence of caries in the population during the pandemic, PSS developed a more robust referral system to help address the urgent dental needs which are screened for during the mission. The emergency is addressed with two points of notification: once with the school nurse the day of the mission and again at the end of the day with a phone call to the parents. Written referrals are completed and followed up upon at the end of the mission and a week after by offering Bureau of Oral Health emergency services in the clinics or a list of alternative locations for them to address their emergency.
- SY 2021-2022 - Project Saving Smiles regular missions were reinstated and expanded to include middle school and high school age students.

The sections below follow a logic model format. For more information on logic models go to: [W.K. Kellogg Foundation: Logic Model Development Guide](#)

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

1. What resources were needed to carry out the activity? (e.g., staffing, volunteers, funding, partnerships, collaborations with various organizations, etc.)





Project Saving Smiles (PSS) needed human resources, financial resources, partnerships and collaborations with the potential stakeholders and organizational structure to run the missions. The core staff are from the Bureau of Oral Health, supported by staff volunteers from the various bureaus and sections of the Houston Health Department and other volunteers from several partner organizations. The partners and collaborators included, Texas Department of State Health Services, Good Neighbor Healthcare Center, Women of Rotary, Latter Day Saints Missionaries, Harris County Public Health, Texas Oral Health Coalition - Houston Region, higher academic institutions, school districts, private industries, and non-profit organizations. Partners share in the planning process, resources distribution, and implementation of PSS.

Project Saving Smiles uses the Incident Command Structure (ICS), a management hierarchy from the National Incident Management System (NIMS) in running the day-to-day activities of the missions. In the hierarchy, there is an Incident Commander at the helm who oversees the whole event/incident. Under his/her command are the 4 Sections, each with its own Section Chief.- Planning, Operations, Logistics and Finance and Administration. The biggest section in PSS missions is the Operation, the section that carries out the main task for the day. Thus it is further subdivided into units such as Registration and Close Out, Clinic Flow and Health Education, each of which has its own unit Lead. On the day of the event, all the staff and volunteers are under the charge of the Section or unit heads that they work under. See diagrams below.

## Incident Command Structure



## ICS Roles/Responsibilities

 <b>Planning</b>	 <b>Operations</b>	 <b>Logistics</b>	 <b>Finance</b>
<p>Collects, evaluates, and disseminates information</p> <ul style="list-style-type: none"> <li>• Daily briefings</li> <li>• Assessments</li> <li>• Process adjustments</li> <li>• Planning</li> <li>• IT</li> <li>• Data collection</li> <li>• Reports</li> </ul>	<p>Manages operations onsite</p> <ul style="list-style-type: none"> <li>• School coordination</li> <li>• Training</li> <li>• Clinic flow</li> <li>• Health Education</li> <li>• Volunteer/ staff recruitment</li> </ul>	<p>Meets all support needs for the mission</p> <ul style="list-style-type: none"> <li>• Transport equipment and supplies</li> <li>• Demobilization</li> <li>• Food services</li> </ul>	<p>Financial and administration services</p> <ul style="list-style-type: none"> <li>• Provides administrative support – T&amp;A</li> <li>• Monitors the expenditures of the operations</li> <li>• Forecasts the needs for additional funds</li> <li>• Reconciles financial documents</li> <li>• Reimbursement</li> </ul>

10

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

2. Please provide a detailed description the key aspects of the activity, including the following aspects: administration, operations, and services.

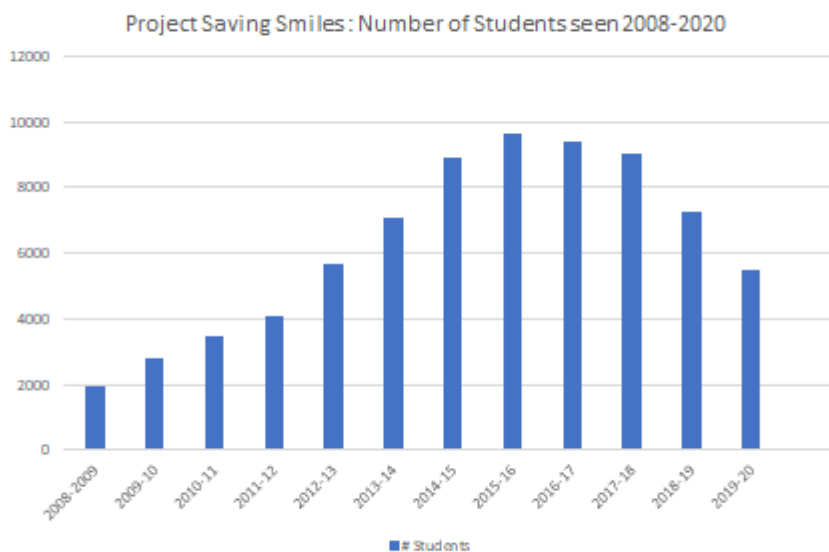
In PSS we implement what we call a three-pronged oral health preventive strategy, namely sealant placement, fluoride varnish application and oral health education to the target population. Our target populations are the 2<sup>nd</sup> graders in schools where 70% (now 50%) or more of the students are on Free or Reduced Lunch Program. Once schools are identified, a letter is sent to their leadership inviting their school to participate in the program. The expectations are that they provide transportation for the students to and from the PSS site, that they provide food and chaperons to their students. The next

step is the putting together of the PSS missions schedule for the upcoming school year. The planning meeting involves both leadership of PSS and representatives from the various school districts. Once the schedule is agreed upon then the school liaison from PSS will meet with the school nurses from the various identified schools and plan out the process and timeline of getting and submission of signed consent form from the parents. The consents are collected 3-4 weeks before a mission. The data is then inputted in a database and based on those, the student packets are prepared. The packets will contain the signed consent form, the SEALS form, the Results form and the Health Educations' Pre-Test and Post Test. On the mission day, the children are brought to the PSS site by their school buses. As the children get off the bus they are handed their student packets that will be used as they go through the clinic – the dental screening, sealant placement and fluoride varnish application and Health Education. If there are urgent dental needs identified during the dental screening, it is addressed by two points of notification: once with the school nurse the day of the mission and again at the end of the day with a phone call to the parents. Written referrals are completed and followed up upon at the end of the mission and a week after by offering BOH emergency services in the clinics or a list of alternative locations for them to address their emergency.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

3. What outputs or direct products resulted from program activities (e.g., number of clients served, number of services units delivered, products developed, accomplishments.)?

Since its implementation in school year (SY) 2008-2009 until March 2020 (PSS missions were stopped due to the COVID-19 pandemic) PSS has provided 74,758 dental screenings, 235,474 dental sealants, 73,819 fluoride varnishes, and oral health education free of charge to second graders enrolled in a free or reduced lunch program across Houston. The average cost per child for these services is \$137.55. The estimated value of the services provided is \$ 9,776,545.97.



INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

4. What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, care delivery system, impact on target population, etc.) Please include the following aspects:
- How outcomes are measured
  - How often they are/were measured
  - Data sources used
  - Whether intended to be short-term (attainable within 1-3 years), intermediate (achievable within 4-6 years), or long-term (impact achieved in 7-10 years)

Efficiency in reaching and delivering preventive care to at risk children is the first achievement this program had. PSS has become an efficient oral health strategy in providing access to preventive dental services to a large number of at-risk school children in a shorter period of time compared to when we were going from school to school bringing our mobile equipment to provide the same dental services. A School of Public Health intern had done a geo mapping using zip codes of the schools and have shown that the areas that are high risk for caries are the same areas that got the most number of sealants. In short we were hitting our target populations. (PSS Practicum Project – Pankti Parmar)

Quality Assurance reviews are done yearly. A random sampling of schools which have gone to PSS for at least a year are drawn. The selected schools then are visited to assess: 1) the quality and retention of sealants placed 2) long term knowledge of oral health education.

Using staff from various bureaus in the Health Department not only infused PSS with manpower, it also broke down silos within the department and brought synergy in our public health practice. There was an evident halo effect on non-dental staff and volunteers making them eager advocates for oral health.

**Budgetary Information:**

NOTE: Charts and tables may be used to provide clarity.

- What is the annual budget for this activity?

\$212,419

- What are the costs associated with the activity? (Including staffing, materials, equipment, etc.)

**Personnel**

Teresita Ladrillo, DDS Bureau Chief	Weekly Mission Cost	# Missions	Annual Request
Salary-Base	4,437.00	9.00	39,933.00
<b>Benefits</b>			
Pension	199.17	9.00	1,792.53
FICA-Civilian	183.93	9.00	1,655.33
Health Insurance	126.27	9.00	1,136.39
Basic Life Insurance	1.55	9.00	13.91
Long Term Disability	1.77	9.00	15.89
Worker's Comp	6.16		

		9.00	55.40
<b>Subtotal</b>	<b>518.83</b>	9.00	4,669.43
<b>Personnel Total</b>	<b>4,955.83</b>	9.00	<b>44,602.43</b>
<b>Supplies</b>			
Medical and Dental Supplies (\$13,000 x 9missions)	13,000.00	9.00	117,000.00
Office Supplies (\$100 x 9 missions)	100.00	9.00	900.00
<b>Supplies Total</b>	<b>13,100.00</b>	<b>9.00</b>	<b>117,900.00</b>
<b>Direct Cost</b>	<b>22,492.83</b>	<b>9.00</b>	<b>202,435.43</b>
<b>Indirect Cost = 25% of Salary</b>	<b>1,109.25</b>	<b>9.00</b>	<b>9,983.25</b>
<b>Total Budget Request</b>	<b>23,602.08</b>	<b>9.00</b>	<b>212,418.68</b>

3. How is the activity funded?

Local funds, special revenue.

4. What is the plan for sustainability?

At the beginning, PSS funding came out of the Bureau of Oral health Budget. There were a lot of donated goods as well. In 2011, PSS got funding from the 1115 Waiver which ended in 2021. There are plans to see if the student's insurance, which typically is Medicaid or CHIP can be charged.

#### **Lessons Learned and/or Plans for Addressing Challenges:**

1. What important lessons were learned that would be useful for others looking to implement a similar activity? Was there anything you would do differently?

This program and the type of processes it uses is probably a good fit for local health departments that have a dental or oral health bureau. There is a core of dental staff that in place. The partnership with a school of higher education to help in workforce development with their exposure to public health is a mutual benefit. You cannot do this large-scale project without partnerships and collaborations.

One of the challenges in conducting the outreach events is that the Bureau of Oral Health (BOH) is short staffed due to resignations and retirements of several staff members. The BOH staff, currently, carry clinical responsibilities as well as outreach duties. An efficiently run program of this magnitude should have a dedicated core mission team that solely focuses on outreach



With our limited clinical staff, we have had to rely on volunteer collaborations from the local dental and hygiene programs and the local dental society for providers. What has become beneficial from this strategy is that we have been able to collaborate more with our community partners. We have then become a great workforce development resource for students and professionals interested in pursuing dental public health initiatives and goals.

2. What challenges did the activity encounter and how were those addressed?

There were six PSS events/missions between October 2019 and September 2020, reaching multiple school districts and charter schools in the greater Houston area including Houston ISD, Aldine ISD, Alief ISD, Klein ISD, Spring ISD and Galena Park ISD. More than 5,000 students with signed parental consent forms received health education and preventive dental services. By March 2020, the Coronavirus public health emergency had reached the Houston Area. Due to the community spread, school districts and the PSS team took proper precautions and followed guidelines as given by the City of Houston Health Authority and canceled the last day of our mission in March 2020 and the week-long mission in May 2020 with Fort Bend ISD for the 2019-and 2020 year.

One of the challenges in conducting the outreach events is that the Dental Bureau is short staffed due to resignations and retirements of several staff members. In March 2020, the Houston Health department underwent an upending of staff across all departments, including dental, to help respond to the Coronavirus public health emergency. Numerous dental staff members were activated to help with City sponsored COVID-19 testing sites, COVID-19 testing mobile units, contact tracing and the COVID-19 telephone information line. As a result, four of the five clinics were closed and only one clinic remained open to only dental emergencies for two months as put into effect by the Texas Dental State Board of Examiners. By May 2020, clinics were able to expand services to include preventive and restorative procedures while taking precaution as guided by the health agencies and Texas Dental Board. Since then, two other clinics have opened and the BOH now has three clinics open for operations. Multiple staff members (including doctors and our hygienist), remain out for activation for the COVID-19 response until the Houston Health Department releases them to return to the clinic. The Health Department understands the importance of oral health and hopes to have all clinics open so that doctors may return to their home clinics and address the preventive and restorative needs for their respective community.

**Available Information Resources:**

Share any models, tools, and/or guidelines developed by the program specifically for this activity that may be useful to others seeking additional information. Hyperlink resources if possible.

- [Impact of Project Saving Smiles](#)

<b>TO BE COMPLETED BY ASTDD</b>	
Descriptive Report Number:	49006
Associated BPAR:	School-Based Dental Sealants
Submitted by:	City of Houston, Houston Health Department, Bureau of Oral Health
Submission filename:	DES49006TX-project-saving-smiles-2022
Submission date:	May 2022
Last reviewed:	May 2022
Last updated:	May 2022