Dental 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

NOTE: Please use Verdana 9 font.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS

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

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SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Oral Health Nutrition and Obesity Control Program

Public Health Functions*: Check one or more categories related to the activity.

"X"	**Assessment**
	1. Assess oral health status and implement an oral health surveillance system.
	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
	Policy Development
X	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
X	5. Develop and implement policies and systematic plans that support state and community oral health efforts
	Assurance
	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
	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 2020 Objectives: Check one or more key objectives related to the activity. If appropriate, add other national or state HP 2020 Objectives, such as tobacco use or injury.

"X"	**Healthy People 2020 Oral Health Objectives**	
X	OH-1	Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
X	OH-2	Reduce the proportion of children and adolescents with untreated dental decay
	OH-3	Reduce the proportion of adults with untreated dental decay
	OH-4	Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease
	OH-5	Reduce the proportion of adults aged 45 to 74 years with moderate or severe periodontitis
	OH-6	Increase the proportion of oral and pharyngeal cancers detected at the earliest stage
	OH-7	Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
X	OH-8	Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year
	OH-9	Increase the proportion of school-based health centers with an oral health component
	OH-10	Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health component

x	OH-11	Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year
	OH-12	Increase the proportion of children and adolescents who have received dental sealants on their molar teeth
	OH-13	Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water
	OH-14	Increase the proportion of adults who receive preventive interventions in dental offices
	OH-15	Increase the number of States and the District of Columbia that have a system for recording and referring infants and children with cleft lips and cleft palates to craniofacial anomaly rehabilitative teams
	OH-16	Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system
	OH-17	Increase health agencies that have a dental public health program directed by a dental professional with public health training

"X"	**Other national or state Healthy People 2020 Objectives: (list objective number and topic)**	
X	NWS-10.2	Reduce the proportion of children aged 6-11 years who are considered obese
X	NWS-17.2	Reduce consumption of calories from added sugars

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:
oral health, nutrition, obesity, health centers

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.

In 2018, the New Jersey Department of Health, Division of Community Health Services, having been awarded funding through the Health Resources and Services Administration (HRSA), entered into an agreement with three Federally Qualified Health Centers (FQHCs) providing dental services, to screen children ages 6-11 at dental visits for Body Mass Index (BMI) according to Centers for Disease Control and Prevention (CDC) guidelines and provide oral health nutrition counseling. The three FQHCs were: Zufall Health Centers, with locations in Northern New Jersey; Chemed with locations in Central New Jersey; and CompleteCare with locations in Southern New Jersey.

Children found to be overweight or obese and covered by Medicaid or uninsured receive up to two additional nutrition counseling sessions with their parents/caregivers at subsequent dental visits. FQHCs receive $50 per counseling session for each unique, eligible patient up to three dental visits. The overarching goal is to increase oral health nutrition literacy among children ages 6-11 and their parents/caregivers, thereby improving oral health and reducing obesity and incorporate screening and nutrition counseling into FQHC best practices.

The first year of the grant funded these three FQHCs up to $40,000 each. Since grant activities started in the third quarter, additional funds are available, and the grant has been expanded to five additional FQHCs in Year 2. During Year 1, a total of 1359 children and their caregivers received oral health nutrition counseling; a total of 355 unique patients were eligible for the program; a total of 429 Medicaid and uninsured claims were verified and paid to health centers for nutrition counseling between March 1 and August 31, 2019. Challenges included the FQHCs training dental staff, incorporating BMI screening into procedure and electronic records systems and providing requested data and claims to the Department. Department processes needed to be set up to receive and verify Medicaid-rejected nutrition counseling claims and uninsured claims. It is unclear that three counseling sessions were sufficient to achieve program goals, however, the participating FQHCs have

incorporated nutrition counseling and weight screening as part of their best practices for this age group. Monthly data collected included patient BMI at each visit, visit type (preventative, restorative, emergency), type of insurance, age, sex, presence of caries, and visit number (counseling session 1, 2 or 3). For Year 2, an assessment tool was developed. It asks the patient and/or caregiver to indicate as a number value: (1) daily toothbrushing (0-3+); (2) number of daily sweetened beverages consumed (0-8+); and number of daily water drinks (0-8+). This tool is to be implemented during Year 2 to gauge any behavior change as a result of counseling sessions.

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 **Verdana 9 font.

Rationale and History of the Activity:

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

Dental caries is the number one chronic disease in children and oral health and nutrition are intricately linked. Three Federally Qualified Health Centers with dental services in areas of low income and with diverse populations in the northern, central and southern counties in New Jersey were engaged to pilot a program of nutrition counseling for children and their caregivers at dental visits. Eligibility for the program included that the child be 6-11 years of age, Medicaid eligible or enrolled, or uninsured, and be overweight or obese as indicated by Body Mass Index using CDC guidelines. Internal state reports processed through the Uncompensated Care Fund indicated that there were patients presenting for multiple dental visits per treatment plan. The purpose of the counseling and program was to inform young patients and their caregivers/parents about the correlation between nutrition, physical fitness, and oral health to promote behavior change, resulting in fewer dental caries and reduce the number of visits for restorative or emergency care and establish a routine of preventative care.

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

In New Jersey, 15% of youth ages 10-17 have obesity, ranking NJ 22nd for this age group among all states and the District of Columbia. This indicates that although there has been a decrease in obesity in WIC participant children ages 2-4,[1] the benefits of this health intervention are lost for a significant number of children by age 10. In addition, obesity disproportionately affects Hispanics (25.8%) and non-Hispanic blacks (22.0%) versus non-Hispanic whites (14.1%), and obesity prevalence was 18.9% among children and adolescents aged 2-19 years in the lowest income group.[2] The Department of Health, through agreement with FQHCs also monitors dental treatment plans with dental procedures requiring five or more visits which are reimbursed by the Department's Uncompensated Care Fund. This fund pays agencies per visit for qualified dental treatments for uninsured patients.[3] Nutrition counseling to increase oral health literacy and decrease dental disease was viewed as a potential way to reduce the number of treatment visits needed for this population. Monthly data collected included patient BMI at each visit, visit type (preventative, restorative, emergency), type of insurance, age, sex, presence of caries, and visit number (counseling session 1, 2 or 3). To begin in Year 2, an assessment tool was developed. It asks the patient and/or caregiver to indicate as a number value: (1) daily toothbrushing (0-3+); (2) number of daily sweetened beverages consumed (0-8+); and number of daily water drinks (0-8+). This tool is to be implemented during Year 2 to gauge any behavior change as a result of counseling sessions.

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

- September 2018: NJ Department of Health, Division of Community Health Services is awarded a four-year HRSA Workforce Grant, funds from which inform the activities of the Oral Health Nutrition and Obesity Control Grant.
- October 2018 – March 2019: A Letter of Agreement is signed between the Department and three Federally Qualified Health Centers: Zufall Health Center, CHEMED Health Center, and CompleteCare Health Center.
- March 2019: The State Dental Hygienist is on-boarded to assist with the creation of the Oral Health Services Unit and oversight of oral health programs.
- April – May 2019: The FQHCs implement the program, train staff, coordinate with billing and information technology.
- May 2019: The first joint phone conference meeting between grantees and the Department. All deliverables are reviewed, challenges and discussions addressed; first data is reported to the Department. Required reporting is established.
- June 2019: HRSA is given an update of the progress of the grant. Periodic report is filed.
- July 2019: The State Dental Director is onboarded and assumes responsibility for the Oral Health Services Unit and oral health programs. This is the first Dental Director at the Department in over 30 years.
- July 2019: Funds for Year 2 are awarded by HRSA.
- June 2019 – September 2019: Monthly meetings are held between grantees and the Department. Reports and data are collected from grantees monthly.
- September 2019: Claims and reporting process is finalized by the Department. Grantees submit claims for payment of $50 each up to three nutrition counseling sessions per unique eligible patient.
- September 1, 2019: Year 2 of the grant begins. The three original grantees continue activities under agreement for Year 2.
- September 2019 – October 2019: Claims are paid to FQHCs; A Notice of Funding Award is announced for Year 2, opened to existing and new applicants.
- October 2019 – December 2019: Five new FQHCs submit applications and are awarded funding.
- December 2019: HRSA is given an update of the progress of the grant. A new assessment tool is introduced for Year 2.
- December 2019: A Kick-off meeting with new grantees is held. An overview of Year 1 with details of deliverables and activities reviewed including reporting, assessment and claims processes. Nutrition counseling materials from Temple University are recommended.[4]
- January 2020: New grantees are expected to implement the program. Existing grantees continue activities and incorporate new assessment tool.

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.)**

- Funding (HRSA Award)
- Coordination between Department and grantees
- Collaboration with grantees to address challenges
- Interagency collaboration to foster cooperation and success
- Information Technology Support
- FQHC and Department claims and billing support
- Department Fiscal Staff support
- Inter-department claims reporting
- FQHC Leadership and Staff Training
- Nutrition counseling materials developed by each FQHC based on national models such as U.S. Department of Agriculture "My Plate" (used by Zufall); Nemours Health and Prevention Services "5-2-1-Almost None" (used by CompleteCare); and materials developed internally by the staff Nutritionist (used by Chemed)
- Nutrition counseling training - front desk, dental staff training

- Scales for weighing dental patients
- FQHC staff front desk and dental staff compliance
- Grant activity training and awareness for FQHC staff
- Grant activity training and awareness for Department staff

INPUTS	**PROGRAM ACTIVITIES**	OUTPUTS	OUTCOMES

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

- Organize monthly meetings
- Create reporting tools
- Create claims reporting process
- Track claims reporting process
- Track data reports from grantees
- Compile data reports from grantees
- Analyze data reports from grantees
- Create reports for grantor
- FQHC patients ages 6-11 screened at dental visits by dental staff trained to calculate BMI, receive oral health nutrition counseling at first screening regardless of eligibility

INPUTS	PROGRAM ACTIVITIES	**OUTPUTS**	OUTCOMES

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

Year 1 Outputs:
- All patients ages 6-11 screened at dental visits by dental staff trained to calculate BMI, receive oral health nutrition counseling at first screening regardless of eligibility: 1359
- Patients in Healthy range BMI: 959 (71%)
- Male patients:148
- Female patients: 167
- Obese Patients: 195 (14%)
- Overweight Patients: 205(15%)
- Unique patients: 355

Additional Year 2 Outputs:
- Caries experience (y/n) at visit
- Visit Assessment Tool: number of daily sugar sweetened beverages consumed, number of daily water drinks, number of daily toothbrushing

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	**OUTCOMES**

4. **<u>What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, care delivery system, impact on target population, etc.)</u> Please include the following aspects:**
    a. **How outcomes are measured**
    b. **How often they are/were measured**
    c. **Data sources used**
    d. **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)**

- Year 1 data reflected actual number of patients served, status as overweight or obese, gender, caries experience between the start date of March 1, 2019 through August 31, 2019.
- Visit number was tracked to observe any difference in BMI between Visit 1 and Visit 3.
- Caries experience was introduced as a measure to observe any differences between Visit 1 and Visit 3.
- Data from Year 1 will be compared to Year 2 data as Year 2 data is reported to note trends.
- Reports are generated and reported monthly for the previous month by grantees to the Department.
- In Year 2, an assessment tool to determine number of Sugar Sweetened Beverages, Water Consumption and Daily Toothbrushing has been developed as a measurement of behavior change as a result of nutrition counseling between Visits 1, 2, and 3.
- Temple University's "Nutrition Counseling and Obesity Prevention handbook for the Dental Community"[4] was used as a data source to create an assessment tool for Year 2.
- At present, the measurement of outcomes is short-term, however, the nutrition counseling practice as an intervention is intended to be incorporated into best practices by participating FQHCs.

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

1. **<u>What is the annual budget for this activity</u>?**

   In Year 1, the budget was $120,013.

   In Year 2, due to the availability of roll-over, unused funds from the first year, the budget is $316,315

2. **<u>What are the costs associated with the activity</u>? (Including staffing, materials, equipment, etc.)**

This grant is on a progress payment basis of $50 per nutrition counseling session up to three sessions, per eligible patient

3. **<u>How is the activity funded</u>?**

This activity is funded by a 4-year grant from HRSA. The grant award from HRSA of $400,000 per year supports three programs, one of which is The Oral Health Nutrition and Obesity Control Grant.

4. **<u>What is the plan for sustainability</u>?**

Activities under this grant are intended to be incorporated into best practices at the participating Federally Qualified Health Centers. Information about the benefits of this program and the results of the program are intended to be shared so that other Health Centers and Health Facilities adopt into regular practice screening for obesity and nutrition counseling at dental visits.

Lessons Learned and/or Plans for Addressing Challenges:

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

An important lesson is this program needs support from multiple areas and actors. It is not adequate to only train dental staff to get the weight, calculate BMI, and report data. Parents/caregivers and children need to be treated with sensitivity, respect and a positive attitude. Patients as well as staff need to be educated about the importance of the intervention. Materials were available in English and Spanish languages, the predominate languages spoken by the FQHC patient populations. In addition

to dental staff, office support, information technology, billing and claims staff and even medical staff need to be engaged.

Medical staff may have the expertise about BMI and nutrition information that dental staff may not. Communication from both dental and medical should occur although this is not a requirement of the program. Since reporting is contingent upon electronic health records systems, Information Technology staff need to be involved and understand the elements of the reporting. Dental billing and claims staff needed to be made aware of a new process for submitting claims to the Department. On the Department side, collaboration with the claims and reporting staff was necessary as well. Bringing all needed staff to the table as early as possible is recommended.
The three pilot FQHCs developed their own nutrition counseling models. Zufall used U.S. Department of Agriculture "My Plate" and their internally developed Caries Risk Assessment; CompleteCare used Nemours Health and Prevention Services "5-2-1-Almost None"; and Chemed used materials developed internally by its staff Nutritionist for consistency with materials used by its medical staff. In Year 2, there is a recommended but not required model, "Nutrition Counseling and Obesity Prevention in Children: A Handbook for the Dental Community", developed by the Temple University Kornberg School of Dentistry in collaboration with Temple University College of Public Health's Center for Obesity Research and Education.[4] The effectiveness of these varying models and difference in results between them will be evaluated in Year 3 and Year 4 of the grant after sufficient data has been collected. In Year 1 of the grant, most of the patients had not received the maximum of three counseling sessions.

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

Grant activities were implemented in Year 1 by the grantees with general reporting requirements only and specific requirements and tools for reporting were introduced in phases over several months. This resulted in incomplete data for two months until more comprehensive reporting tools were developed by newly hired staff. It was quickly discovered that both the data and claims reporting required specific agency staff expertise outside of dental staff. These staff were identified both on the FQHC grantee and Department sides and incorporated into monthly grant meetings. This challenge was met with cooperation, sharing, and encouragement on all sides as it was necessary for everyone to work together to provide technical and practical solutions.

SOURCES:

1- Robert Wood Johnson Foundation, State of Childhood Obesity Report, 2017-2018. https://stateofchildhoodobesity.org/children1017/
2- Centers for Disease Control. Childhood Obesity Facts, https://www.cdc.gov/obesity/data/childhood.html)
3- New Jersey Department of Health, 2019.
4- Bhoopathi V, Tripicchio G, Sarwer DB, Cordero-Ricardo M, Tellez M, Langenau E, Hill J. *Nutrition Counseling and Obesity Prevention in Children: A Handbookfor the Dental Community*. Philadelphia, PA, Temple University. Maurice H. Kornberg School of Dentistry, April 2019. Available at https://dentistry.temple.edu/NCOP_Handbook

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.

TO BE COMPLETED BY ASTDD	
Descriptive Report Number:	33031
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