Dental Public Health Activity Descriptive Report Submission Form

The Best Practices Committee requests that you complete the Descriptive Report Submission Form as follow-up to acceptance of your State Activity Submission as an example of a best practice.

Please provide a more detailed description of your **successful dental public health activity** by fully completing this form. Expand the submission form as needed but within any limitations noted.

ASTDD Best Practices: Strength of Evidence Supporting Best Practice Approaches
Systematic vs. Narrative Reviews: http://libguides.mssm.edu/c.php?g=168543&p=1107631

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
Name: Sarah Tomlinson, DDS **Title: NC Dental Director** **Agency/Organization: North Carolina Division of Public Health-Oral Health Section** **Address: 5505 Six Forks Road, Raleigh, NC 27609** **Phone: 919-707-5488** **Email Address: Sarah.Tomlinson@dhhs.nc.gov**

SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Use of Surveillance to Direct State and Local Oral Health Programs

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

"X"	**Assessment**
X	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
	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
	Policy Development
	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
	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
	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
	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

	OH-11	Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year
X	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
X	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)**

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:
Surveillance, oral health survey, children oral health status, epidemiological study, needs assessment, acquiring oral health data

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.

The Oral Health Section (OHS), North Carolina Division of Public Health, determines the oral health of a community in three ways: (1) Dental assessments - measuring specific oral conditions such as the average number of decayed, missing and filled teeth and proportion of children with dental sealants, (2) Dental screenings - identifying children in need of dental care and referring them for care, and (3) Statewide epidemiological surveys - scientifically measuring the quantity and types of oral disease in a population. The epidemiological surveys are conducted approximately every 15 years. The North Carolina oral health program has been based on epidemiological studies beginning in the 1960's with a household dental survey of people of all ages. Findings were used to guide program planning through the 1970's. The 1960 household survey was repeated in 1976 to measure trends in oral health status and to provide baseline information for the newly implemented school-based dental prevention and education program. The next survey in 1986-87 was school-based and included almost 8,000 schoolchildren. The outcome of this survey resulted in a major programmatic change in the North Carolina oral health program emphasis from restorative treatment services to preventive services, especially dental sealants. The OHS believed it was necessary to closely monitor oral health trends in young children and therefore, implemented annual standardized Kindergarten and 5th grade dental assessments in 1995.The Statewide Evaluation of Community-Wide Strategies to Promote Dental Health, conducted in 2003-2004, was also a survey of school children. However, it included additional information to evaluate the Section's community-based prevention programs. In 2015, 5th grade was no longer targeted for assessment. The decision was made to target 3rd grade to be consistent with the National Oral Health Surveillance System (NOHSS) indicators. Implementation to begin 2017-2018 and every 5 years thereafter.

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?

   The North Carolina has one of the country's premier state dental public health programs. The Oral Health Section (OHS) has a long history of robust surveillance activity, dating back to 1960. The Section determines the oral health of the community in three ways: (1) Dental assessments - measuring specific oral conditions such tooth decay, (2) Dental screenings – identifying individuals in need of dental care and referring them for treatment, and (3) Statewide epidemiological studies – scientifically measuring the quantity and types of oral diseases in a population. The findings from the first statewide survey in 1960 were used to effectively guide the program planning through the 1970's when the next survey was conducted. These epidemiological studies have been conducted approximately every 15 years.

   Recommendations based on the findings of the third survey included major programmatic modifications to the North Carolina oral health program such as (1) targeting of screening to specific grades and high-risk groups, (2) greater emphasis on follow-up of children who are screened and need treatment, and (3) a change in program emphasis from restorative treatment to preventive services, especially dental sealants. These programmatic changes continue to guide present-day OHS operations.

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

   As conditions affecting dental health have continued to change, the OHS has been keen to continue gathering oral health data on North Carolina citizens, particularly children. The OHS believed it was necessary to closely monitor oral health trends in young children and therefore, implemented annual standardized Kindergarten and 5th grade dental assessments in 1995.

   Given current resources and governmental support, a large-scale epidemiological survey is unlikely to occur at this 15-year juncture.

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

   1960 – Statewide door-to-door oral health survey of all ages

   1976 – Statewide follow-up oral health survey

   1986-1987 – North Carolina School Oral Health Survey

   1996 – Statewide implementation of annual standardized Kindergarten and 5th grade dental assessments. Decayed, Missing and Filled Teeth (dmft/DMFT) used as measure of tooth decay.

   2003-2004 – Statewide Dental Survey (school children)

   2015 – 5th grade no longer targeted for assessment; 3rd grade to be targeted, consistent with National Oral Health Surveillance System (NOHSS) indicators. Implementation to begin 2017-2018 and every 5 years thereafter.

2016 – Measure of tooth decay simplified from dmft/DMFT to Basic Screening Survey (BSS) methodology devised by the Association of State and Territorial Dental Directors (ASTDD).

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.)

Staffing
- Annual Kindergarten assessments are completed by the 24 OHS Public Health Dental Hygienists (field staff) located throughout the state.

Funding
- Assessments are funded from the OHS annual operating budget. Grants and other funding sources have not been necessary to support this activity.

Partners
- North Carolina Department of Public Instruction (DPI) – access to rosters of all NC public school classrooms
- North Carolina Division of Public Health, Information Technology – build and maintain database for assessment data
- School staff (school health nurses, administrators, social workers) – provide access to the schools and students; assistance with administrative needs (ie permission/opt-out forms, space to conduct assessments, etc)
- ASTDD – technical assistance with sample selection of schools

INPUTS	**PROGRAM ACTIVITIES**	OUTPUTS	OUTCOMES

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

- Sample selection of schools completed; theoretically a one-time process, unless a school refuses to participate, which would require the random selection of a replacement school. Otherwise, the idea is to assess the same set of schools each year.
- OHS administrative staff request roster for current school year from DPI.
- OHS field staff contact schools for permission to conduct assessment.
- Assessments are conducted at sample schools. Data is collected on paper form.
    - Each student receives an Assessment Report, including referral if necessary.
    - School health nurse is provided roster of children requiring dental care.
    - OHS field staff and/or school nurse provide follow-up on referrals.
- OHS field staff enter assessment data into database.
- OHS administrative staff generate school-level data reports and staff are asked to verify the data.
- OHS administrative staff generate state report and post to OHS website (typically occurs the following school year).

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, etc.)

- Statewide random sample of 124 schools
    - Schools with fewer than 20 Kindergarteners were excluded. Random sample of schools was then selected from each of the 10 regions* in the state, then ordered by their Free and Reduced Lunch enrollment percentage.

- Sampling procedure intended to ensure approximately 800 Kindergarteners from each region are assessed annually.
- During the 2015-2016 school year, 10,000 Kindergarteners were assessed.

(*Regions as designated by the NC Association of Local Health Directors)

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:
    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)

- Data available for use by the public, including local health departments and children's health advocacy organizations. **Short-term**
- Ability to compare trends in caries experience (dmft >1), untreated decay (d > 1) and sealants by county. Beginning 2016-2017, data will show untreated decay and sealants only, available by region, county and race/ethnicity. **Short/Intermediate-term**
- Ability to infer impact of OHS preventive programs on oral health status (ie Into the Mouths of Babes fluoride varnish program and school-based sealant program). **Intermediate/Long-term**

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

1. What is the annual budget for this activity?

   $110,000

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

   Approximate annual cost: $86,000
   - Screeners (all hygienists) - $20,000
   - Travel - $10,000
   - Office supplies - $1,900
   - Screening supplies
     - Disposable - $12,000
     - Misc supplies - $1,900
   - Data entry (by screeners/hygienists) - $40,000

   Translation of forms (3) is not required annually. The one-time cost was approximately $1,200.

   Formal data analysis and interpretation and report printing are not routinely done for the annual assessments.

3. How is the activity funded?

   Annual Kindergarten assessments are funded from the OHS annual operating budget.

4. What is the plan for sustainability?

   Annual Kindergarten assessments are sustainable through the OHS annual operating budget.

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?

   Although the OHS has been doing annual assessments in schools for nearly 25 years, there continue to be lessons learned.

   - Developing assessment protocols and selecting samples are relatively easy tasks. Getting into schools to conduct assessments can be a long, arduous process. If there is not an existing relationship with a school, it may take *at least* 1 year to establish trust and gain buy-in from key individuals within a school.
   - If there is a local health department dental program or mobile dental program that provides clinical services in the schools, school administrators may be reluctant to allow a second party in the school because the assumption is a "duplication of efforts". Explaining the significance of surveillance and how it differs from what locals may be providing is important to gaining school access – although it is not always enough. If there is support from the superintendent and/or local health director, having them contact the school may be helpful.
   - If there is a local health department dental program who also collects surveillance data in the schools, negotiation and creative collaboration will be required to ensure both parties get what they need. If a suitable agreement cannot be made, a replacement school may need to be selected.
   - With this amount of data, consider the expertise, time and money required to build a database to house the information. This includes deciding in advance what type of reporting you want the database to be able to produce.

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

   (See above)

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	
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