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 <u>Verdana 9 font</u>.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS

Name: Kimberlie Yineman

Title: Director, Oral Health Program

Agency/Organization: North Dakota Department of Health

Address: East 600 Boulevard, Dept. 301, Bismarck ND 58505

Phone: 701 328 4930

Email Address: kyineman@nd.gov

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

Name: Grace Njau

Title: Epidemiologist

Agency/Organization: North Dakota Department of Health

Address: East 600 Boulevard, Dept. 301, Bismarck ND 58505

Phone: 701 328 4930

Email Address: gnjau@nd.gov

SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:
North Dakota's Oral Health Surveillance System

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.
X	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
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 <u>key</u> 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**	
	OH-1	Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
	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

	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 system, oral health data, oral health epidemiology, BSS, PRAMS, BRFSS, YRBS, research, evaluation, 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.

North Dakota Department of Health, Oral Health Program (NDOHP) began building its oral health surveillance system in 1993. With limited staff and resources for surveillance, strategies to collect data for surveillance included paying for primary data collection, bargaining/bartering with partners to collect the data, integrating oral health into existing surveillances/surveys, and enlisting the support of key stakeholders to collect the data. In 2007, the NDOHP acquired the services of epidemiology staff equal to a 0.5 full time equivalent position.

A broad-based member advisory committee assists the program in identifying data sources and gaps, providing data for the system, defining the indicators, reviewing data collection methods and processes, interpreting trends and making recommendations for data communication activities. A surveillance logic model was created to guide the program in development of the surveillance plan and system. Currently, the North Dakota Oral Health Surveillance System (NDOHSS) includes 44 indicators in the areas of oral health status and treatment need, utilization of dental services, oral health behaviors, tobacco use, oral cancer, cleft lip and cleft palate, dental workforce, and fluoridation.

The purpose of the NDOHSS is to monitor oral health status and trends and use the information to guide program actions to improve the oral health of North Dakotans. The data is used for program planning and implementation, assessing program effectiveness, guiding policy planning and advocacy and improving program accountability. This resulted in the implementation of oral health components in local maternal and child health programs; targeted fluoride mouth rinse, fluoride varnish and dental sealant programs to high risk children; establishment of a dental loan repayment program to expand the dental workforce; and expanding the scope of practice to allow medical professionals to apply fluoride varnish to high-risk children. The surveillance plan includes a timetable for data collection, a question matrix, a data indicator grid to track trends, and a data communication plan. Program integration, collaboration and strong partnerships assure the sustainability of the system by leveraging resources.

SECTION II: DETAILED ACTIVITY DESCRIPTION

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

<u>Complete using **Verdana 9 font</u>.

Rationale and History of the Activity:

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

NDOHP Program began building its oral health surveillance system in 1993 as a means to aggregate various data sources to understand the oral health needs of the state's population.

The North Dakota state dental director negotiated the inclusion of the optional oral health module in the Behavioral Risk Factor Surveillance System (BRFSS) in 1995 and 1998 by justifying the need for the data and cost-effective methods of collecting it. In 1999, the oral health module became part of the United States Centers for Disease Control and Prevention (CDC) emerging core BRFSS survey. Starting in 2002, the oral health module has been included in the rotating core BRFSS survey in every even year. Oral health questions were included in the Youth Risk Behavior Survey (YRBS) in 1995 and have been a part of that survey every time it has been conducted in North Dakota since then due to continued involvement of the state dental director in the planning of the survey. By 2000, the surveillance system included 27 indicators and nine key data sources. In 2004, the Association of State and Territorial Dental Directors (ASTDD) Basic Screening Survey (BSS) was implemented statewide in a sample of third-grade students and at the local level in the state Health Tracks Program Early Periodic Screening, Diagnostic, and Treatment (EPSDT) and in Head Start Programs.

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

The NDOHSS as a clear purpose: to monitor oral health status and trends and use the information to guide program actions to improve the oral health of North Dakotans. NDOHSS data are used for program planning, implementation and evaluation; policy planning and advocacy; and improvement of program accountability.

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

The NDOHP began building its oral health surveillance system in 1993 by aggregating data from various sources in the efforts to understand the oral health needs of the state's population.

Key milestones of the program include the addition of the Oral Health Optional Module to the BRFSS in 1995; the addition of oral health status questions to the YRBS starting in1995 and in 2004, the NDOHP initiated the first Third Grade BSS. In 2016, the NDOHP also included additional questions on oral health access to the ND Core Surveillance Pregnancy Risk Assessment Monitoring System (PRAMS). 2018 will be the first time that these data will be available in ND. A detailed summary of the initiation dates and frequency of data collection is presented below.

Data Source	Agency/Division	Time Frame
Head Start Program Information Report (PIR)	North Dakota Department of Human Services (NDDHS)/Children and Family Services	Annual
Basic Screening Survey (BSS)	NDDoH/Family Health	Every 3-5 years

North Dakota Department of Human Services' (DHS) Medicaid Program	NDDHS/Medical Services	Annual
North Dakota Vital Records	NDDoH/Vital Records Division	Annual
Youth Risk Behavior Surveillance System (YRBS)	Department of Public Instruction	Every 2 years
Youth Tobacco Survey (YTS)	NDDoH/Tobacco	Every 2 years
Behavioral Risk Factor Surveillance System (BRFSS)	NDDoH/Community Health Section	Annual (oral health rotating core every 2 years)
New Mother's Survey	NDDoH/Family Health	1996 & 1999
Pregnancy Risk Assessment Monitoring system (PRAMS)	NDDoH/Family Health	2002, 2016 (ongoing)
North Dakota Cancer Registry	NDDoH/Cancer Prevention and Control	Annual
Licensure Workforce Survey	NDDoH/Family Health	Every 2 years
Dental Workforce Survey	NDDoH/Family Health	Every 2 years
North Dakota Water Fluoridation Reporting System (WFRS)	NDDoH/Division of Municipal Facilities	Annual
North Dakota State Data Center and the U. S. Bureau of the Census	Available to all agencies	Annual

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.)

- **Key Staff**
  State Dental Director
  Oral Health Epidemiologist
  Environmental Scientist for Water Fluoridation Program
  IT Support
  Data Entry/Support Staff
- **Data Sources**
  The NDOHSS comprises of national data, state data, local-level data (region, county, community), and new data collection to fill any data gaps.
  Sources of the data include: Head Start Program Information Report (PIR), Basic Screening Survey (BSS), Medicaid, Vital Records, Behavioral Risk Factor Surveillance System (BRFSS), Pregnancy Risk Assessment Monitoring System (PRAMS), Water Fluoridation Reporting System (WFRS), State Cancer Registry, Youth Risk Behavior Survey (YRBS), Youth Tobacco Survey, workforce surveys, the state Data Centers and the U.S. Bureau of the Census.
- **Equipment**
  Hardware (desktop computers, printers, IT server)
  Software (SAS, SPSS, MS Office Suite, Internet access)
- **Other**
  Community support
  Funding

Revised March 2016

Key stakeholders/partners
Memorandums of agreement for data sharing

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.

Leadership – Leadership is a process by which a person influences others to accomplish objectives and directs the activities in a way that makes the process cohesive and effective. Strong leadership within the NDOHP is necessary to provide direction for effective utilization of the NDOHSS to achieve program goals.   Grace Njau and Kimberlie Yineman work to provide the support needed for this project.

Analytic Capacity – Trained and experienced staff who are skilled in data analysis, interpretation and presentation are important to the success of the NDOHSS.

Infrastructure – Infrastructure refers to the set of interconnected structural elements that provide the framework supporting an entire structure. Structural elements essential to the success of the NDOHSS include establishment of clear roles and responsibilities, a comprehensive plan for achieving the objectives, and sustained funding.

Partnerships –The Oral Health Epidemiologist partners with both internal and external partners. Internal partners include representation from the Chronic Disease, Cancer, Water Quality and Vital Records Divisions. Other agencies that contribute data, the Department of Human Services, Department of Commerce

Funding- Funding for the surveillance system is included in the salary of the Oral Health Program Epidemiologist and is included in her job description

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.)

- Quarterly Oral Health Data Advisory Committee meetings
- Planning, implementation, and dissemination of data
- Maintenance of NDOHSS indicators and databases
- Documentation of indicator calculation methods
- Linking data sources
- Networking and collaborating with other agencies
- Data gap identification
- Identification of new data sources
- Data analysis and interpretation
- Dissemination of reports at the local, state and national level
- Complete quality assurance tests of data
- Ensure data security and confidentiality per HIPAA
- Establish strategies for sustaining NDOHSS
- Maintain Water Fluoridation Reporting System linkage
- Evaluation of NDOHSS

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

6

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)

Each year, the epidemiologist conducts a review of all new data collected and updates the NDOHSS as necessary. The Oral Health Program evaluator works with the epidemiologist to evaluate the program at the end of each fiscal year.

Short-term Outcomes
- Ongoing monitoring of oral health trends in North Dakota
- Increase in evidence-based interventions, planning and evaluation
- Match services to need

Long-term Outcomes
- Documentation of changes in oral health indicators
- Improved oral health of North Dakota citizens

Data Sources
- National data sources
- State data sources
- Local-level data sources (region, county, community)
- New data collection to fill the data gaps

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

1. What is the annual budget for this activity?

   The NDOHP has funds diversified over general and federal funds. The annual budget is included in the salary for the programs epidemiologist as part of the job description.

2. What are the costs associated with the activity? (Including staffing, materials, equipment, etc.)
   The costs included in this activity are mainly staffing for the program director and epidemiologist. The funding is included as part of the epidemiologists salary, it would be difficult to account for the exact amount

3. How is the activity funded?

   Much of the funding has been comprised primarily from the CDC cooperative agreement. CDC provides grants to 21 states to strengthen their oral health programs and improve the oral health of their residents. Through this agreement, the NDOHP received $310,600 to maintain strategies to improve oral health in the state.

4. What is the plan for sustainability?

   In order to sustain this program, the NDOHP continues to seek funding opportunities that are both beneficial and cost effective and match up with the goals of the program. The funding for the implementation and maintenance of the surveillance system comes from CDC as part of the salary for the epidemiologist.

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?

   A mature surveillance system shows several years of data and analyzes trends. In order to sustain the NDOHSS, data collection must be consistent and maintained in the NDOHP offices.

   In addition, partnerships with other agencies and divisions are essential to sustaining the access to data, proper interpretation of data and development of new data collection tools.

   The Licensure Workforce Survey is designed and analyzed by the NDOHP. However, the State Board of Dental Examiners (SBDE) helps with the mailing by including the surveys with the

Revised March 2016

license renewal. The Dental Workforce Survey is conducted by the University of North Dakota-Center for Rural Health in partnership with the NDOHP. Without working partnerships like this, the NDOHSS could not be sustained.

Sustainability also relies on consistency in the collection of data. Several data points measuring the same indicators are necessary to produce trends. These trends are used to identify areas where problems may be growing and where attention is needed to address the problem. In addition, trends are critical in demonstrating progress that the program and partners are making in improving the status of oral health in North Dakota.

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

The surveillance system is dependent on the timeliness of data collection and dissemination from other programs and agencies such as the Department of Human Services (Medicaid data) and the Department of Public Instruction (Youth Risk Behavior Survey). While this issue can be out of the control of the NDOHP, open communication and good historical relationships allow the NDOHP to be prioritized by these other agencies. Additionally, oral health staff serves on various committees that house the various data sources to ensure the collaboration continues.

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.

North Dakota Dental Assistant Survey Questionnaire
North Dakota Dental Hygienist Survey Questionnaire
North Dakota Dentist Survey Questionnaire

TO BE COMPLETED BY ASTDD	
Descriptive Report Number:	37001
Associated BPAR:	State-based Oral Health Surveillance System
Submitted by:	Oral Health Program, North Dakota Dept. of Health
Submission filename:	DES37001NDsurveillance-2017
Submission date:	July 2002
Last reviewed:	May 2017
Last updated:	May 2017

Revised March 2016