Dental Public Health Activity Descriptive Report

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SECTION I: PRACTICE OVERVIEW

Name of the Dental Public Health Activity: West Virginia Oral Health Surveillance System

Public Health Functions:

"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
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
x	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
X	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
X	10. Conduct and review research for new insights and innovative solutions to oral health problems

Healthy People 2020 Objectives:

"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
x	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
X	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
	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)**	

State:	**Key Words for Searches:**
WV	Data, surveillance, policy, quality improvement

Abstract:

Prior to 2010, West Virginia (WV) had very limited data on the oral health status of its population. Through a contracted partnership with the Marshall University School of Medicine and funding from the DentaQuest Foundation, the West Virginia Oral Health Program began to develop its oral health surveillance system in an effort to monitor and evaluate the effectiveness and impact of oral public health initiatives, as well as inform future project development. Within three years, these efforts supported completion of basic screening surveys (BSSs) for the Pre-K, third grade, adult and older adult/senior populations, as well as surveys of consumers of dental services, the state dental workforce (dentists and dental hygienists), and ongoing monitoring of other available data sources through a full-time oral health epidemiologist/program evaluator position.

Since 2013, oral health surveillance is now an established component of the state oral health program (SOHP) and is conducted following the 2013-2018 Oral Health Surveillance Plan. Surveillance has also been expanded to include new populations, including being the first state to complete a perinatal BSS (2014). Despite recent economic changes requiring the support of surveillance to be restructured, the state oral health program recognizes that surveillance is a critical component of program sustainability. Data is needed to "tell the story" to funders, to support policy development, and to monitor continuous quality improvement around current projects and future initiatives.

Contact Person(s) for Inquiries:

Teresa Marks, Program Director, West Virginia Oral Health Program**,** West Virginia Department of Health and Human Resources – Oral Health Program**,** 350 Capitol Street, Room 427, Charleston, WV 25301**,** Phone: 304-356-4233**, Email:** Teresa.d.marks@wv.gov

Jason Roush, DDS**,** West Virginia State Dental Director**,** West Virginia Department of Health and Human Resources – Oral Health Program**,** 350 Capitol Street, Room 427, Charleston, WV 25301**,** Phone: 304-558-5388**,** Email: Jason.m.roush@wv.gov

SECTION II: PRACTICE DESCRIPTION

Rationale and History of the Activity:

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

    - Limited infrastructure for state oral health program
    - Needed data to support development of applications for federal funding
    - No burden of oral disease document for state

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

    - Assessment is a core function of public health programming
    - Oral health is largest unmet need in United States (Institute of Medicine (IOM) report)
    - Evidence-based school-based sealant programs, but no centralized collection method for services in WV school systems
    - Legislative champion (also a medical doctor) who saw need in rural WV for oral disease prevention and treatment

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

    - DentaQuest Foundation funding (Oral Health 2011 and 2014): supported baseline state BSS surveillance and hiring of an oral health epidemiologist/program evaluator within state oral health program (SOHP).
    - 2011: SOHP released a request for proposal for regional oral health (OH) coordination project (which included surveillance as part of job duties/grant activity). Marshall University School of Medicine (MUSOM) awarded funding.
    - 2011: West Virginia Department of Health and Human Resources (WV DHHR) – SOHP hires first full-time oral health epidemiologist/program evaluator.
    - 2010-12: Baseline surveillance completed for the following populations:
        - Children (Kindergarten and third grade)
        - Universal Pre-K
        - Adult (age 18 and above)- note: information collected at Federally Qualified Health Centers (FQHCs)
        - Older Adult/Senior (age 50 and above)
        - Dental Workforce (dentists and dental hygienists)
        - Oral Health Service Consumers
    - 2013-2018: First West Virginia Oral Health Surveillance System (WVOHSS) Plan published.
    - 2014: SOHP publishes first burden of oral disease document.
    - 2014: West Virginia is first state to complete a perinatal BSS.
    - 2013-present: Second round of BSS on original populations (adult surveillance currently pending).
    - 2014-present: Collaboration with West Virginia Department of Education (WVDE) and West Virginia Statewide Immunization Information System (WVSIIS) to develop an oral health service module.
    - 2015: Office of Maternal, Child and Family Health (OMCFH) selects National Performance Measure 13 as part of the core measures for the new Title V Block grant in West Virginia.
    - 2016: MUSOM sealant database begins to be used to collect all school-based dental service data in alignment with West Virginia Board of Education (WVBE) Policy 2423: Section 7.1.c

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, Activities, Outputs and Outcomes of the Practice:

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES

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

    - Funding to support regional OH model and OH epidemiologist/evaluator (State of West Virginia, DentaQuest Foundation, Centers for Disease Control and Prevention, Health Resources and Services Administration).
    - Partnership with Association of State & Territorial Dental Directors to inform BSS process.
    - Collaboration with MUSOM, West Virginia Board of Dentistry, WVDE, and West Virginia Bureau of Medical Services.
    - Staffing to conduct BSS.

INPUTS	**PROGRAM ACTIVITIES**	OUTPUTS	OUTCOMES

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

    - Ongoing monitoring and evaluation of available data sources by the oral health epidemiologist/program evaluator within WV DHHR.

    - Surveillance activity contracted through MUSOM.

    - MUSOM responsible for conducting oral health surveillance on a sampling of a selected West Virginia population, including:

        - Determination of a valid sample
        - Calibration of surveyors
        - Training of surveyors
        - Development of a real-time data collection tool
        - Travel to and from survey sites
        - Collection of surveillance data
        - Cleaning of surveillance data
        - Maintenance of the data collection tool

    - Dental workforce surveillance is collected through paper Scantron survey disseminated by West Virginia Board of Dentistry; mailed with annual renewal paperwork for dental and dental hygiene licensure.

    - Contracted with the West Virginia Department of Education to facilitate development of an oral health service module within the West Virginia Statewide Immunization Information System (WVSIIS).

    - On-going collaboration with West Virginia Bureau of Medical Services to monitor utilization of children's oral health services:

        - Annual review of the CMS-416
        - Periodic data requests for quality improvement initiatives (i.e., fluoride varnish application by non-dental providers)

INPUTS	PROGRAM ACTIVITIES	**OUTPUTS**	OUTCOMES

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

    - WVOHP/MUSOM published issue briefs for the following:
        - 2010-2011 Children's Surveillance
        - 2011-2012 Pre-K Surveillance
        - 2012 Older Adult/Senior Surveillance
        - 2012 Adult Surveillance
    - WVOHP published 2012 Consumer Survey Report
    - WVOHP published 2012 Dental Workforce Report
    - 2012 – WVOHP hired first epidemiologist/program evaluator
    - WVOHP published first surveillance plan (2013 – 2018)
    - WVOHP published first burden of oral disease document (2014)
    - 2014 – West Virginia is first state to complete a perinatal BSS
    - MUSOM completes second round of BSS for the following populations:
        - Third grade (2013-2014)
        - Pre-K (2014-2015)
        - Older Adult/Senior (2015-2016)
        - Adult (2016-2017; pending completion)
    - WVOHP completes second round of surveying for dental workforce in collaboration with West Virginia Board of Dentistry (2015)
    - 2016 – MUSOM sealant database begins to be used to capture all school-based dental services
    - Pending:
        - Updated publication of issue briefs for newest BSS activities
        - Launch of WVSIIS Oral Health Services Module (July 2017)
        - Updated state oral health surveillance plan (2018+)

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	**OUTCOMES**

- 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)

  Short-term outcomes:

    - Provided necessary surveillance infrastructure to measure and monitor state oral health projects and initiatives
    - Provided baseline data to inform application(s) for federally-funded oral health projects

  Intermediate outcomes:

    - Provide data to monitor and evaluate the progress of state and federal oral health projects
    - Demonstrate ability to address oral health needs based on data
    - Inform development of policy to address oral health needs

  Long-term outcomes:

    - Improved utilization of oral health services for children
    - Increase in number of children with sealants on primary molar teeth
    - Decrease in prevalence of oral disease in early childhood through adolescence
    - Increase in collaboration between medical and dental practice

Budgetary Information:

1. What is the annual budget for this activity?

- Available funding for state grants through oral health is $143,082 (FY2018; approximately 27% decrease from FY2017).

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

- Surveillance has been included as an activity of the Regional Oral Health (OH) Coordination model in West Virginia (2011-2017).
- Prior to FY2016, additional monies within the Office of Maternal, Child and Family Health (OMCFH) were available to support the Regional OH Model from the Birth to Three (BTT) Program. As the State has experienced an increase in referrals and eligible children for these essential BTT services, those monies are no longer available.
- Additionally, as the state has experienced a decline in economy and revenue, the Regional OH Coordination model is being restructured and incorporated into existing regional models through mandated Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services, also within the OMCFH. Surveillance will continue as a separate, contracted activity.
- Funding for oral health epidemiologist/program evaluator position currently comes from Title V Block Grant; West Virginia is one of several states that has selected National Performance Measure (NPM) and this position supports that work as well.

Table 1 – Associated Costs for WV Oral Health Surveillance System (including primary surveillance), Fiscal Year (FY) 2015-2018

Budget Item	Organization	Associated Costs FY2015	Associated Costs FY2016	Associated Costs FY2017	Associated Costs FY2018
Oral Health Epidemiologist/ Program Evaluator (salary & fringe benefits)	WV DHHR – Office of Maternal, Child and Family Health (OMCFH), Division of Research, Evaluation and Planning (REP)	$45,550	$45,550	$45,550	$45,550
	Subtotal	$45,550	$45,550	$45,550	$45,550
Regional OH Coordination Model •Community OH Lead •Four Regional OH Coordinators (including one lead coordinator) •Contracted Surveillance Support (as needed) •Grants Program Manager •IT Specialist •Grants Assistant (salary & fringe benefits)	Marshall University Research Center FY2015 & 2016 = 9 personnel (5.05 full-time employee/FTE) FY2017 = 6 personnel (3.95 FTE) FY2018 = 2 personnel (0.26 FTE)	$319,928	$309,883	$230,146	$29,659
Materials (Supplies/meeting costs)		**$10,859**	**$10,956**	**$2,595**	**$5,540**
Web-based data collection		$14,448	$14,448	$6,000	$9,160
Travel (In-state)		$22,800	$22,800	$9,849	$8,995
Data Services		$2,400	$2,400	$1,200	$1,700
	Subtotal	$370,435	$360,487	$249,790	$55,054

TOTAL	**$415,985**	**$406,037**	**$295,340**	**$100,604**

3. How is the activity funded?

- Currently, this activity is state funded. A one-time increase in funding from the Centers for Disease Control and Prevention State Oral Disease Prevention Program (DP13-1307) in the amount of $30,000 was used to support state surveillance activity (Budget Period 9/1/2016 to 8/31/2017).

4. What is the plan for sustainability?

- Continued use of available state funding for oral health surveillance.
- Incorporating oral health measures into other programs/organizations as applicable (future plans to work with local health agencies, state primary care association, and expanding to programs that serve children birth to three and adolescents).
- Incorporating surveillance as a key element of federally-funded projects when applying for future funding.
- Utilizing students at schools of public health to inform projects and continuous quality improvement.

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?

- Utilize existing surveillance models (i.e., ASTDD BSS) and available data sources; don't reinvent the wheel.
- Collaboration, partnerships and relationships are critical in development of surveillance.
- Weather can be a barrier, often creating a demand for the need of more time to complete.
- When dealing with rural areas with sparse populations, often times participation numbers are low on any given site visit. This creates the need to return multiple times to complete the required number of surveys.
- Webinars can be utilized to calibrate screeners.
- Oral health champions are integral to project success and sustainability. A variety of perspectives and voices are needed to make changes within both policy and practice.

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

- Perinatal BSS – Sample sites included Women, Infant and Children (WIC) Program sites; training and enrollment can now primarily be done online, so intended traffic at these sites was lower than anticipated.
- Time can act as a barrier. There are often difficulties encountered with gaining approval from the key contact person allowing access to the site. Even though an announcement letter goes out, it is often weeks that go by before finding "the right" individual that serves as the gate keeper for scheduling.
    - Generate a backup list for alternate surveillance sites, as it will inevitably be needed.
    - Develop relationships with a point person at any surveillance site, as it will be extremely valuable for future surveillance when repeating populations.
- One challenge faced was the "temptation" for everyone to do their own surveillance (i.e., schools, Federally Qualified Health Centers (FQHCs), etc.). Developing a frequently asked question (FAQ) helped other entities understand the surveillance process and shared the surveillance results for their use as well.
- An ongoing challenge is high turnover in the oral health epidemiologist/program evaluator position. The SOHP is considering contracting support for this position though a state school of public health in an attempt to have more long-term and consistent support for oral health initiatives, especially for program evaluation.

Available Information Resources:

- 2016-2020 WV State Oral Health Plan
- 2010-2011 Children's Surveillance
- 2011-2012 Pre-K Surveillance
- 2012 Older Adult/Senior Surveillance
- 2012 Adult Surveillance
- 2012 Consumer Survey Report
- 2012 Dental Workforce Report
- 2013-2018 WVOHSS Plan
- 2014 WV Burden of Oral Disease